~~Drawings~~

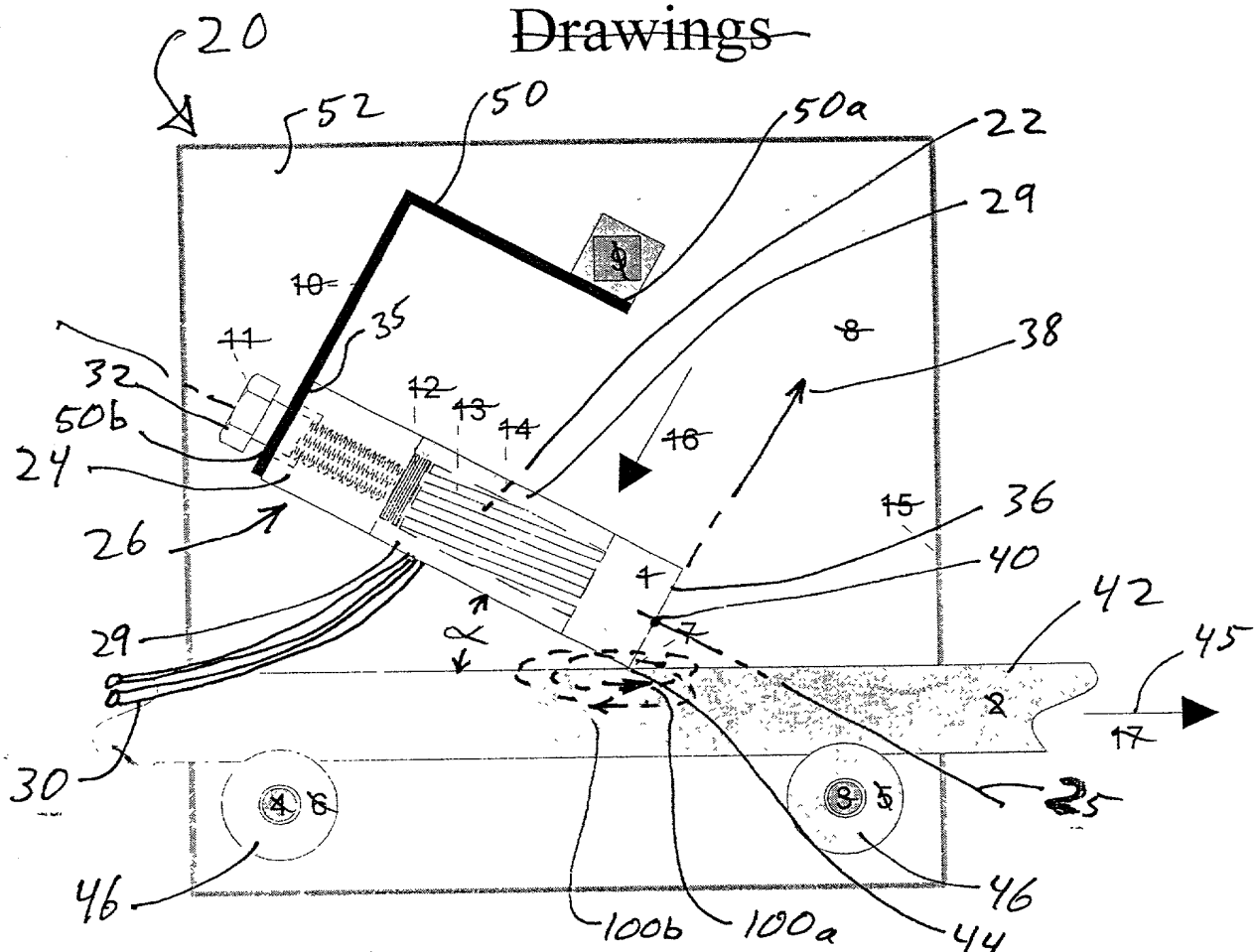


Figure 1a

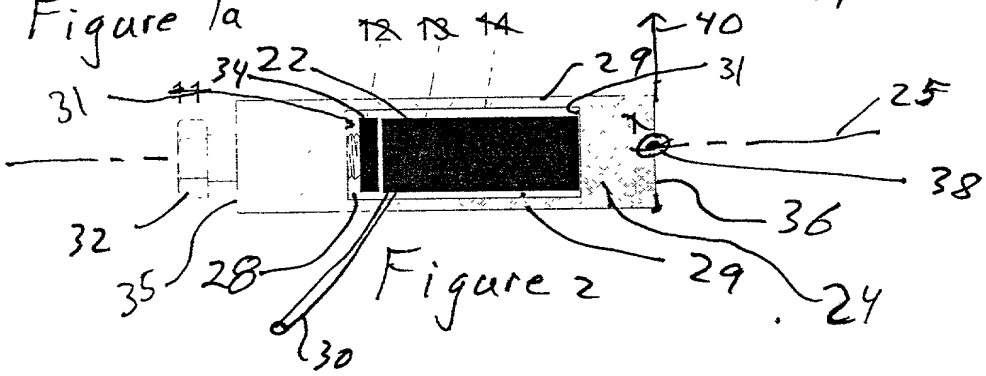


Figure 2

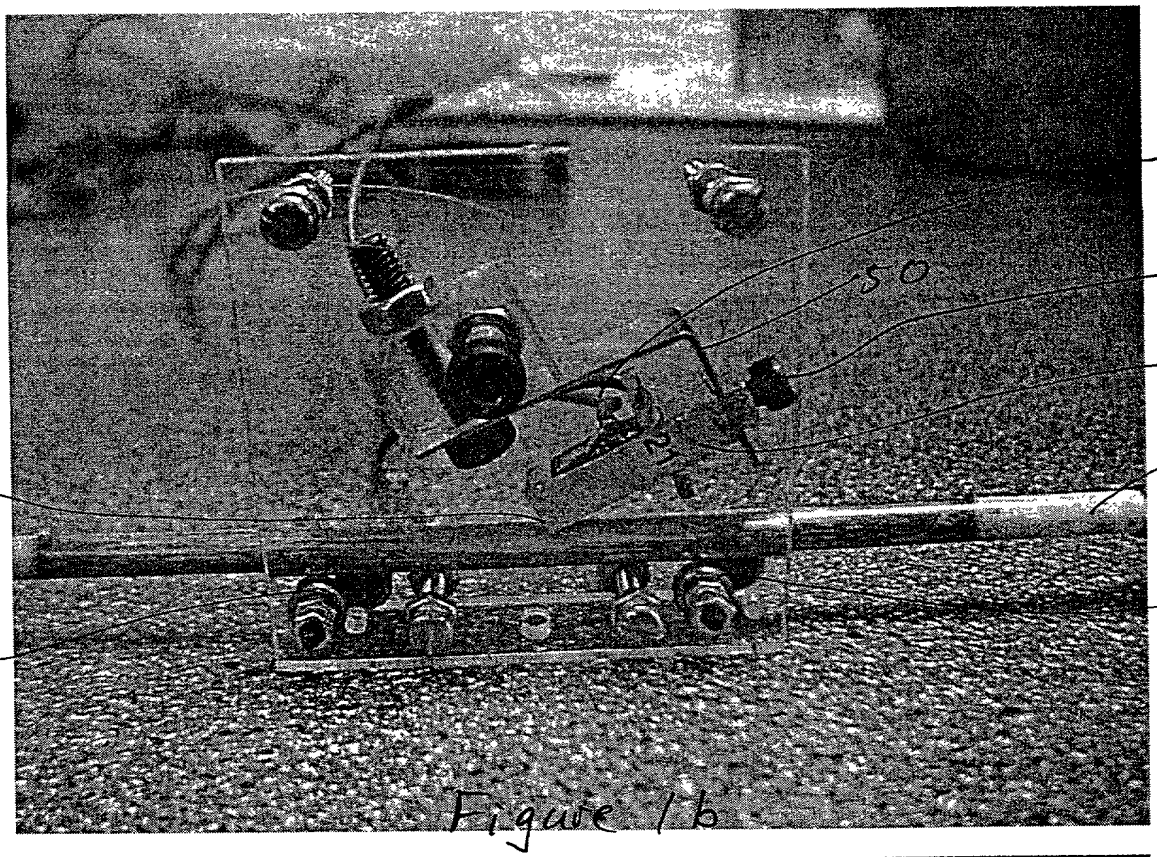
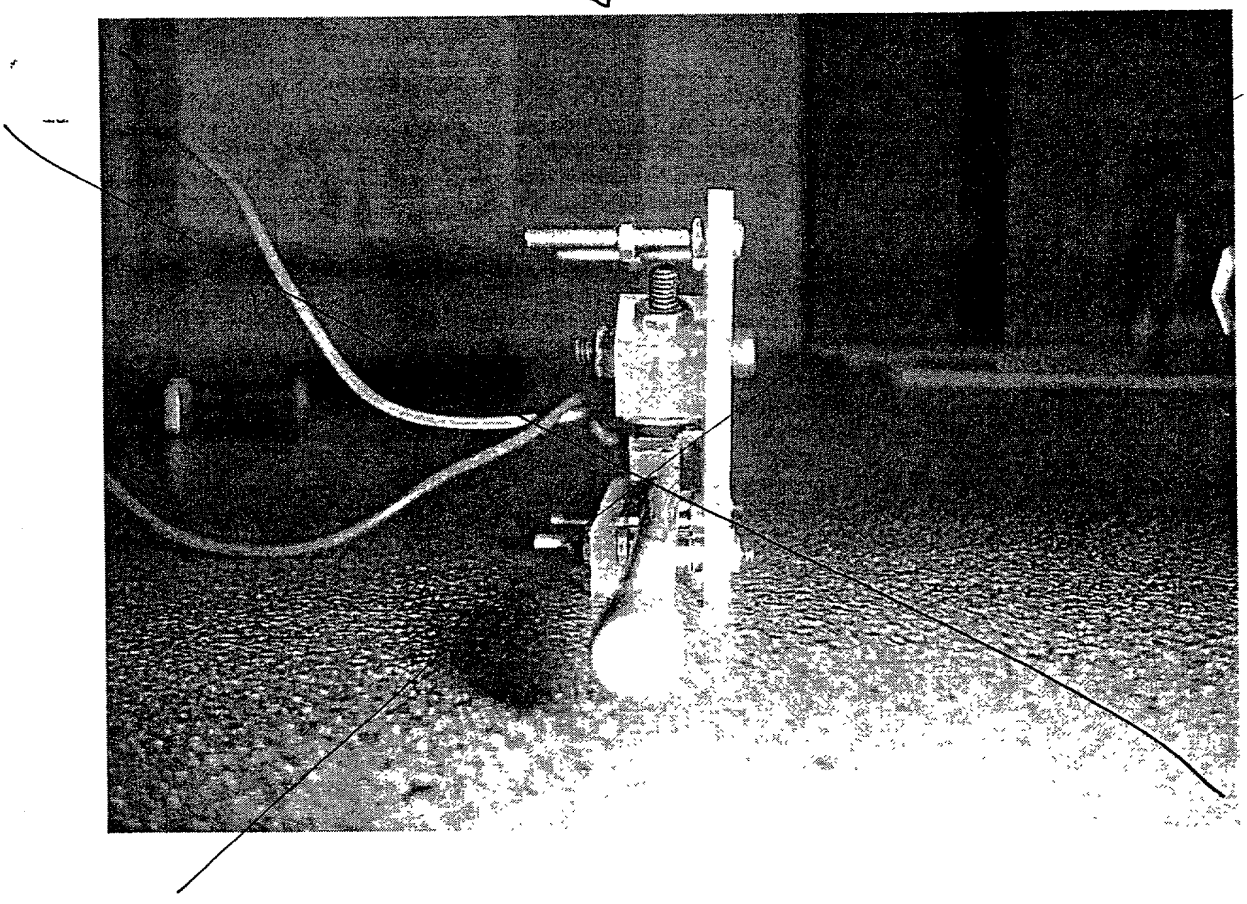
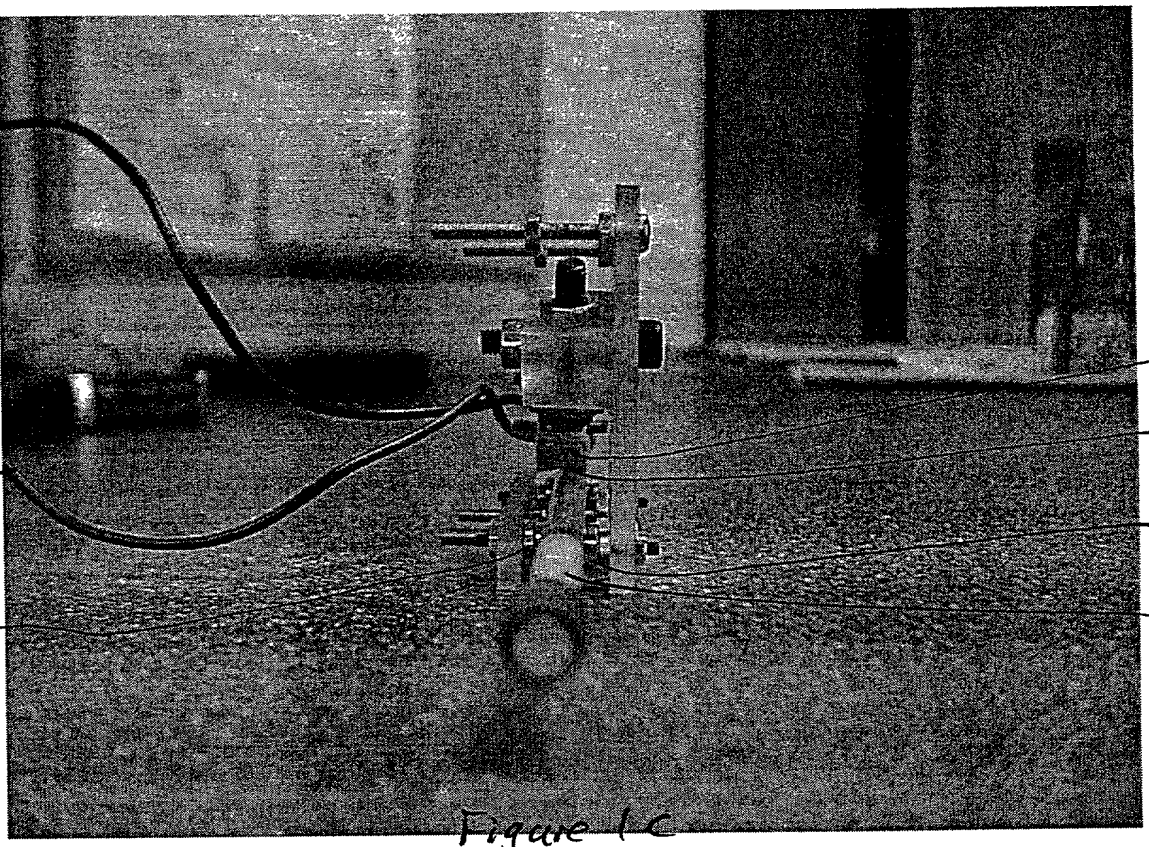


Figure 1b





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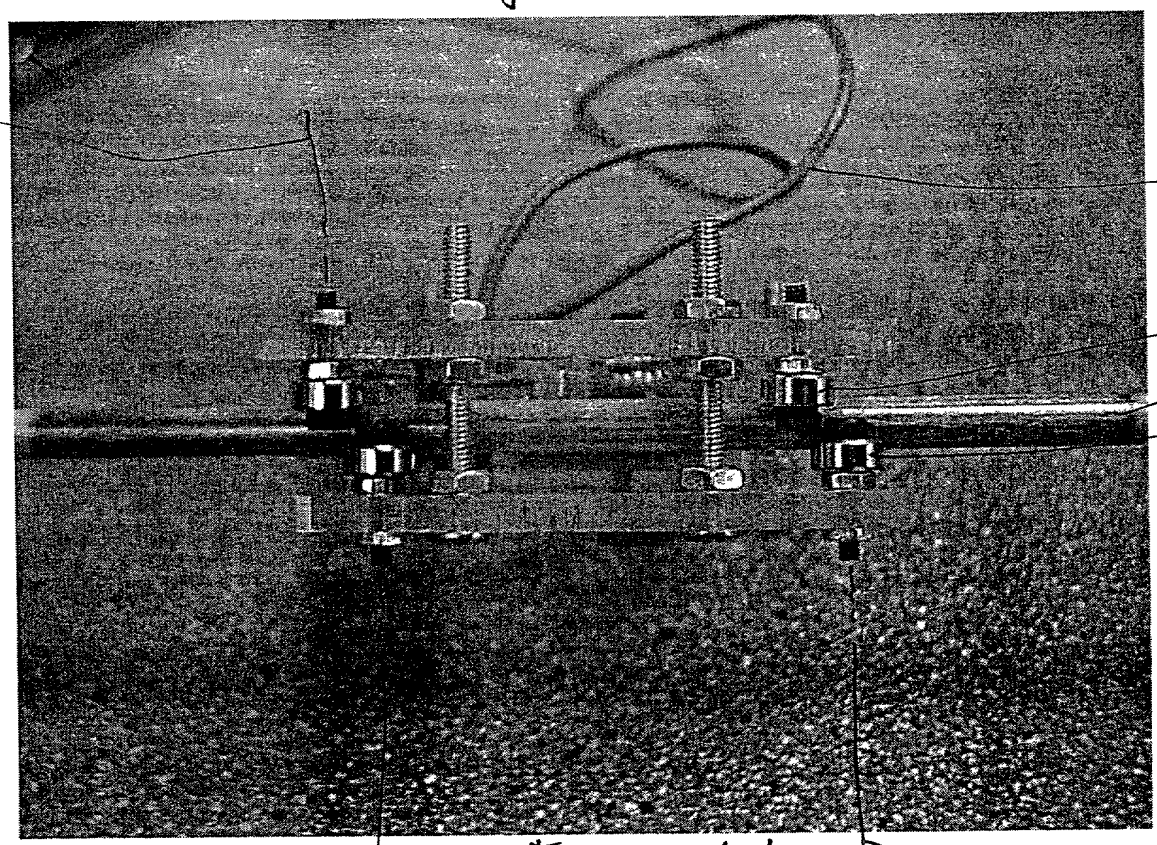


Figure 1d

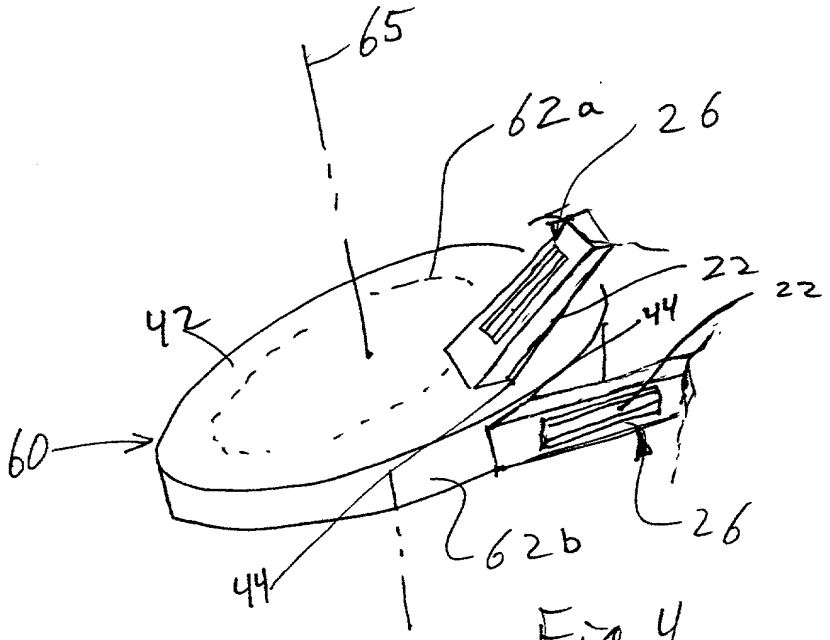


Fig. 4

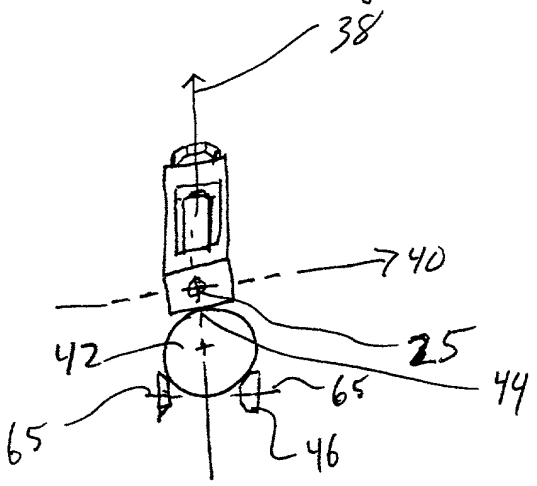
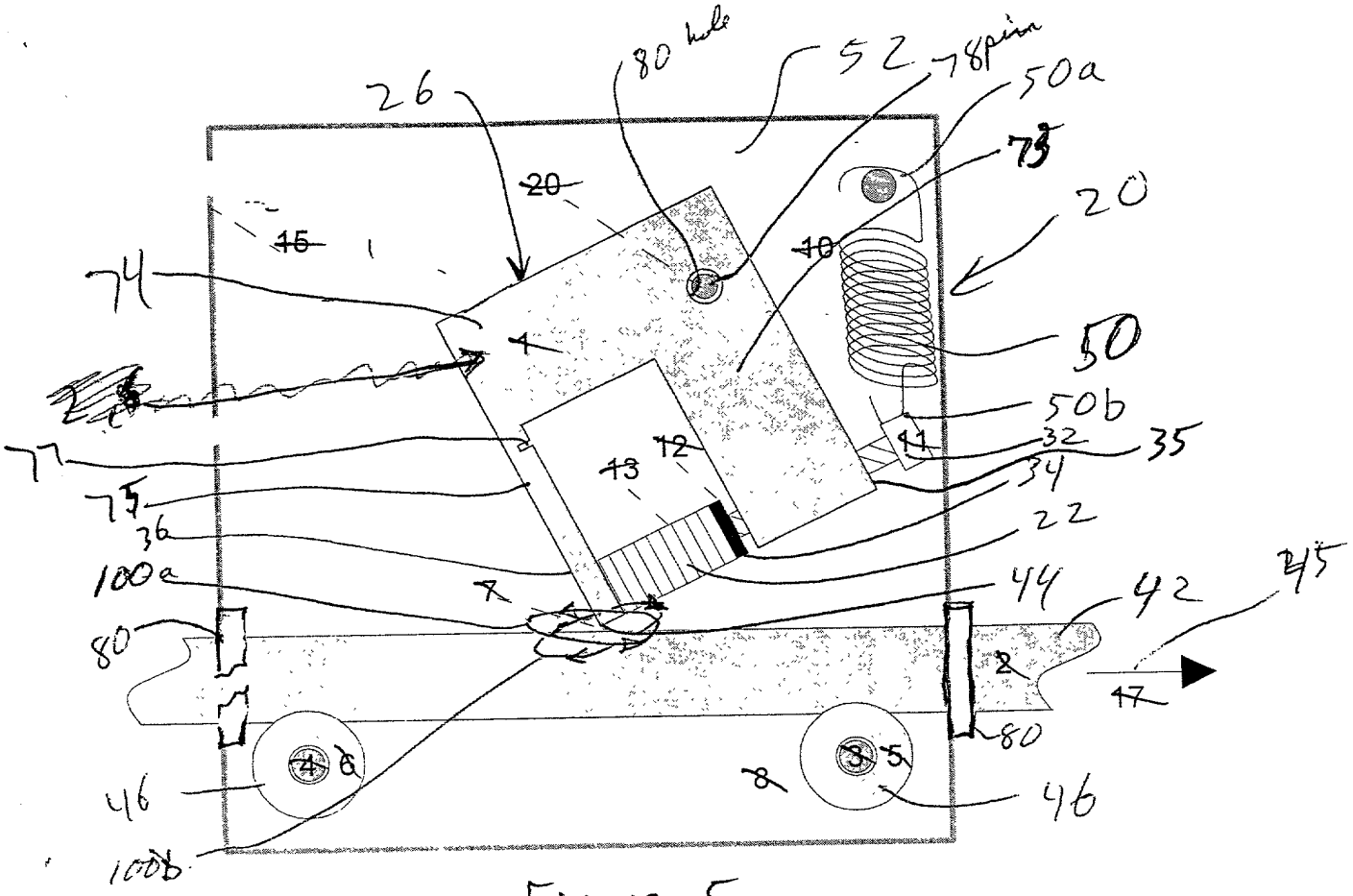


Fig. 3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74
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100a
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42
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80
2
17
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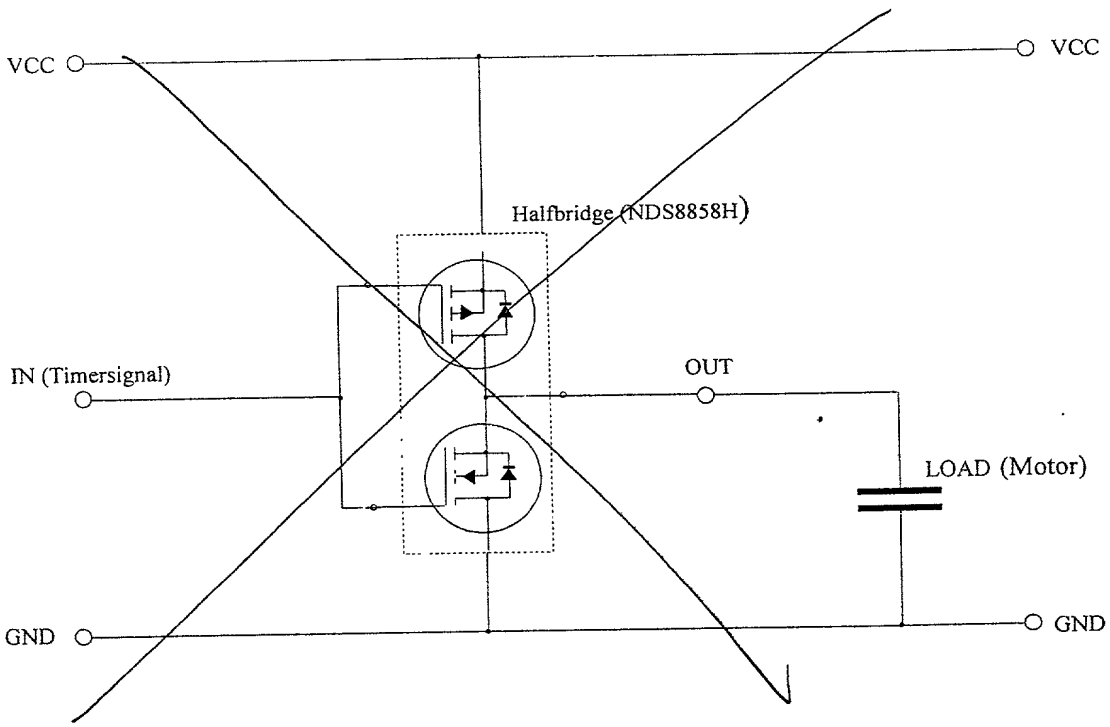
46
46
100b

Figure 5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VCC
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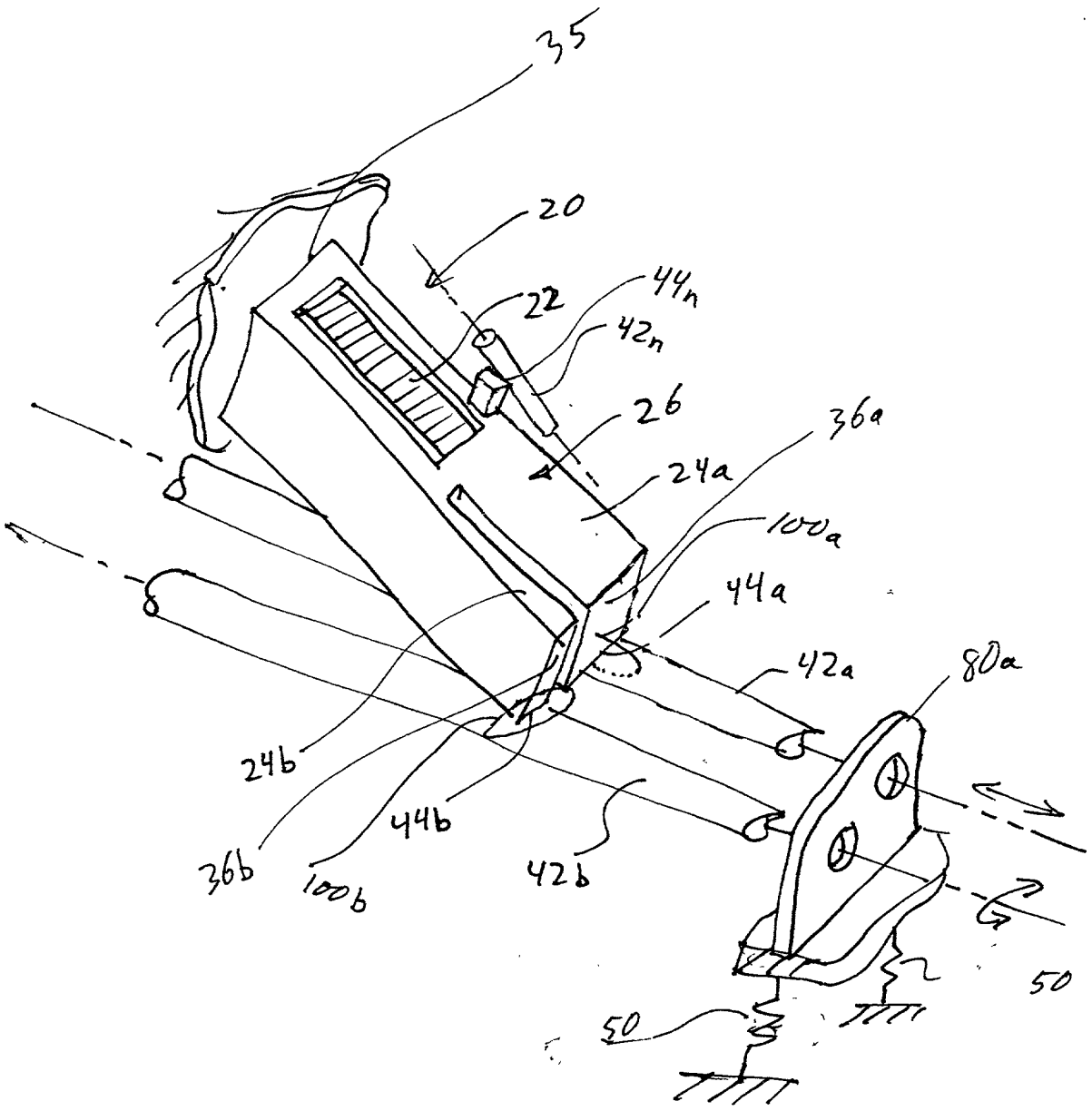
IN (Timersignal)
OUT
LOAD (Motor)
GND
GND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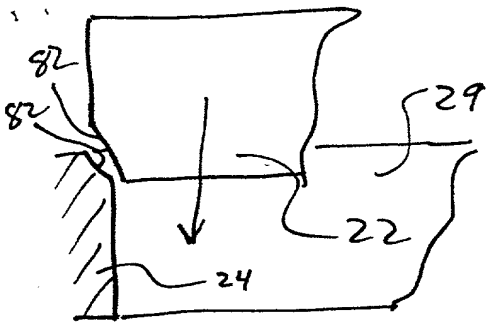
50

Figure 6



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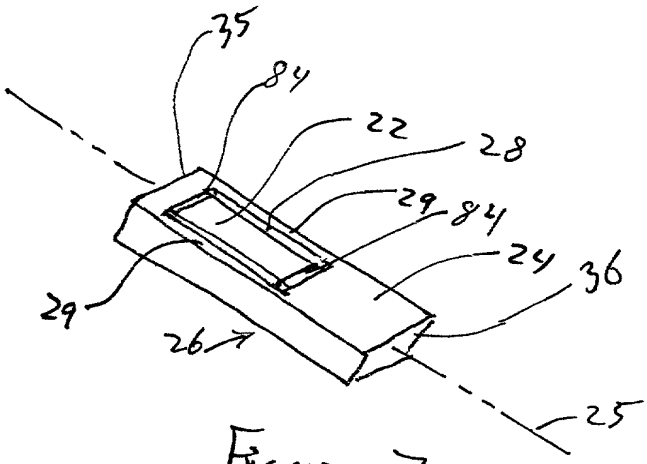

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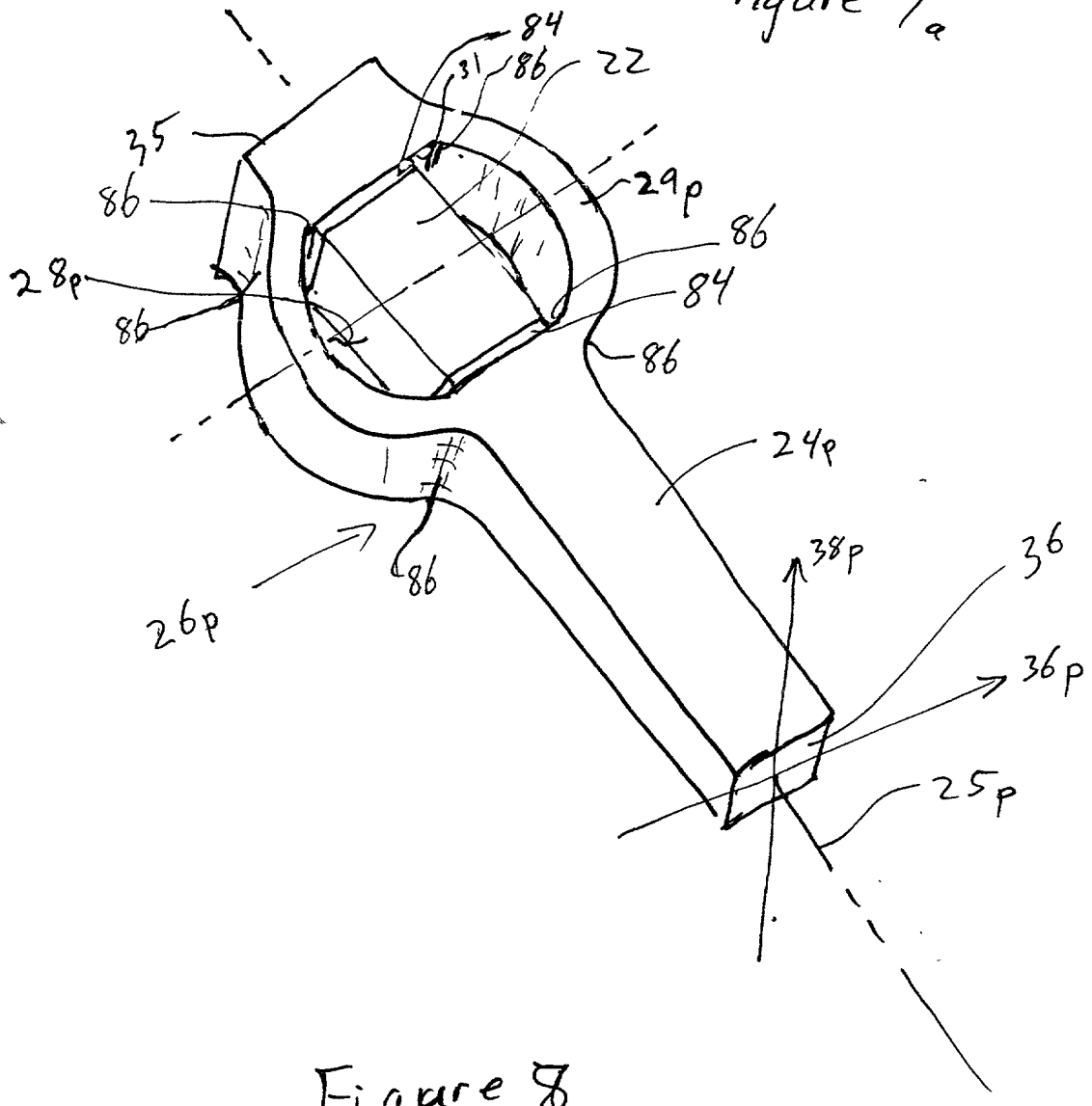
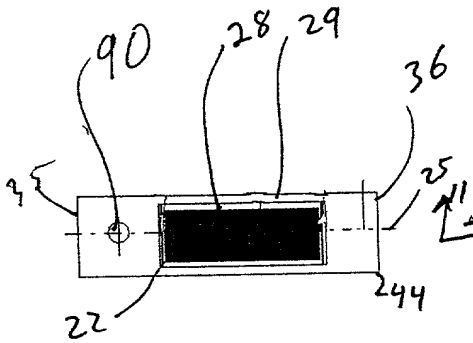


Figure 8

09804434 "09804434



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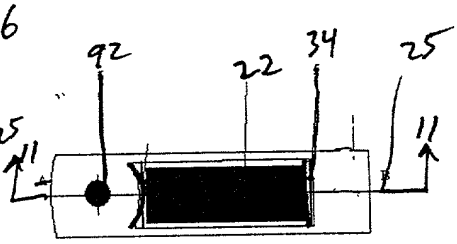

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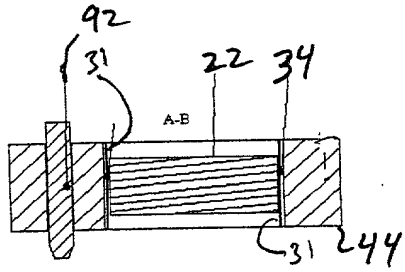

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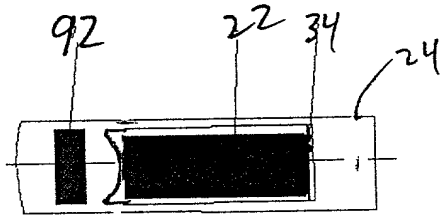

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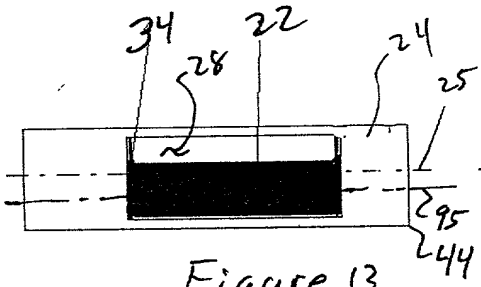

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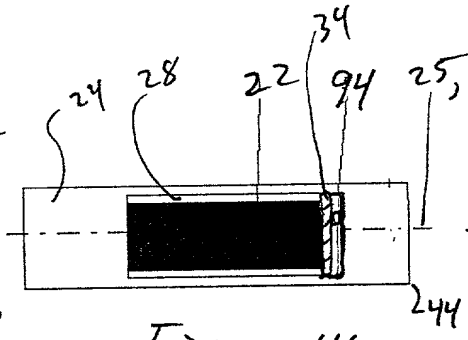

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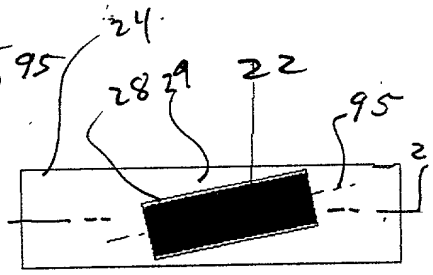

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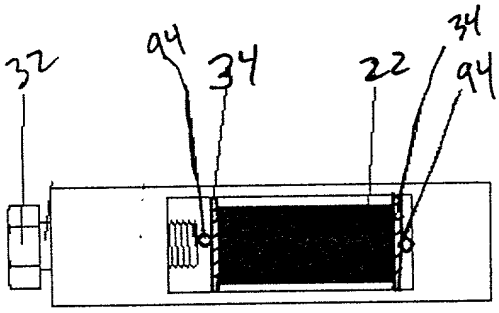
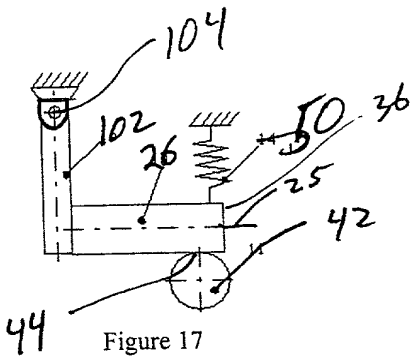


Figure 16

Sheet 4 of 6



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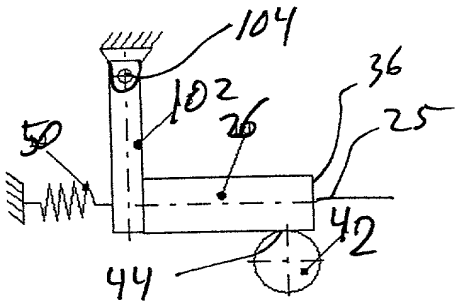

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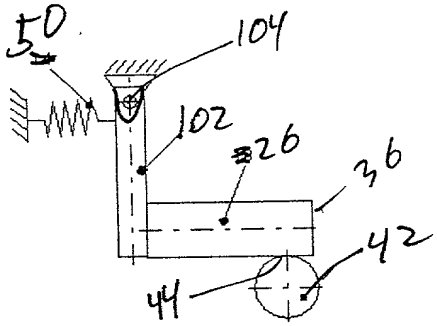

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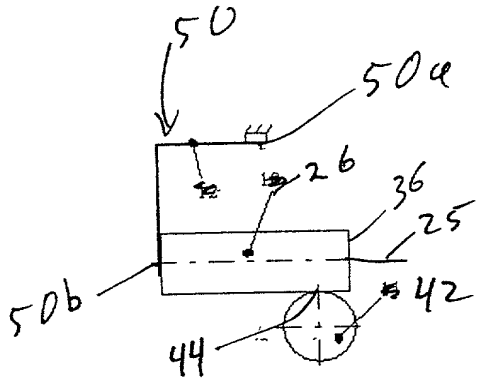

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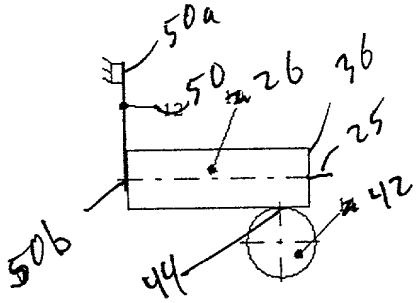

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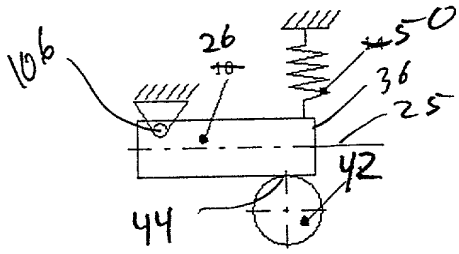

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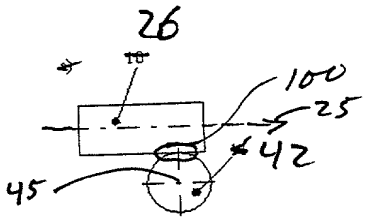

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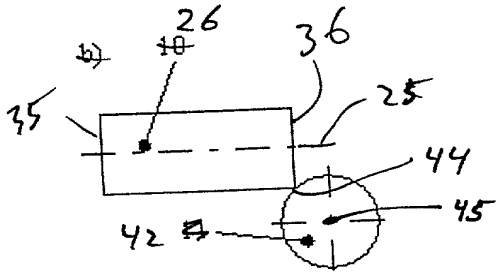

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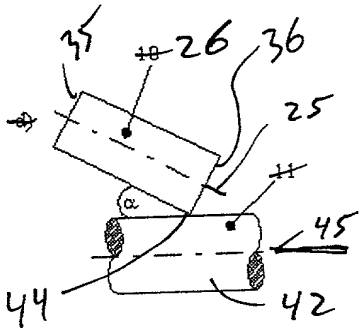

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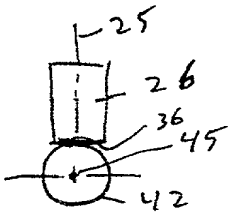

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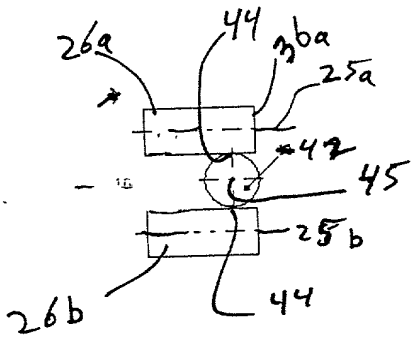

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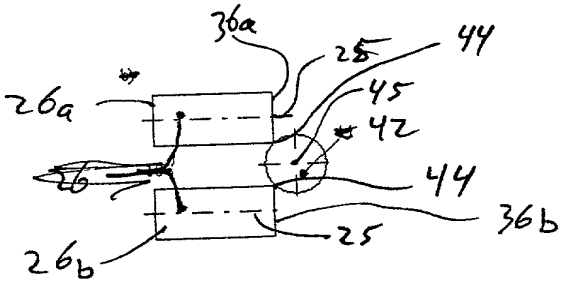

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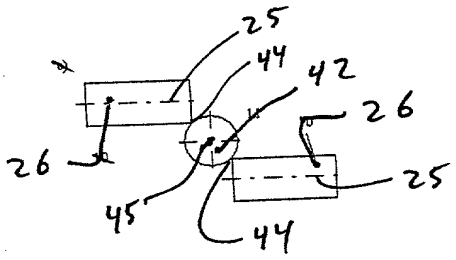

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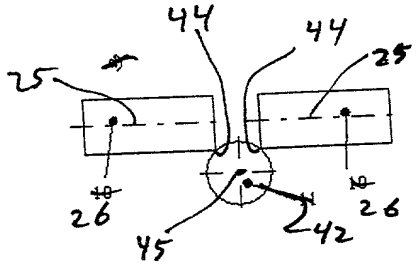

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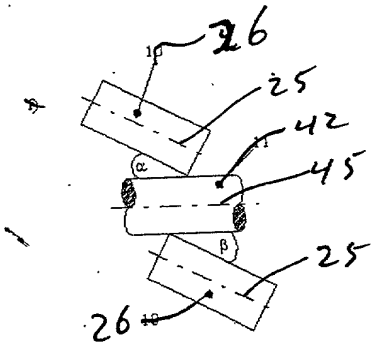

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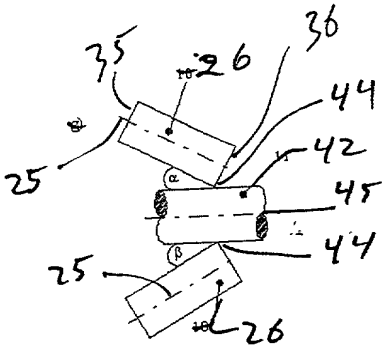

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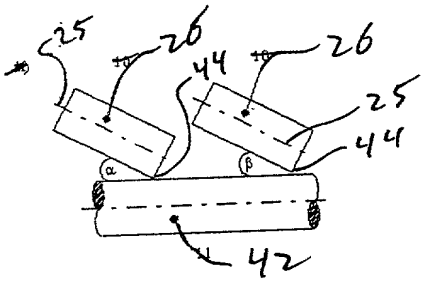

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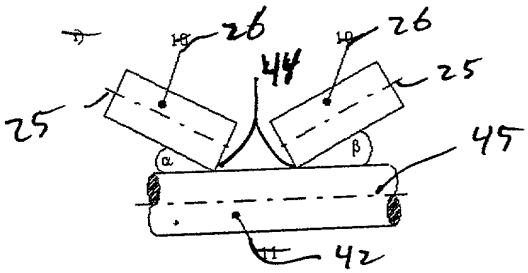

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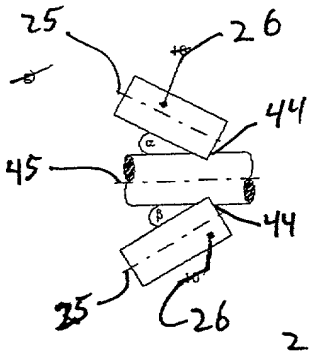

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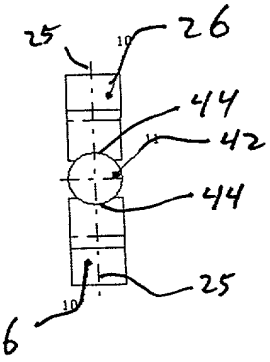

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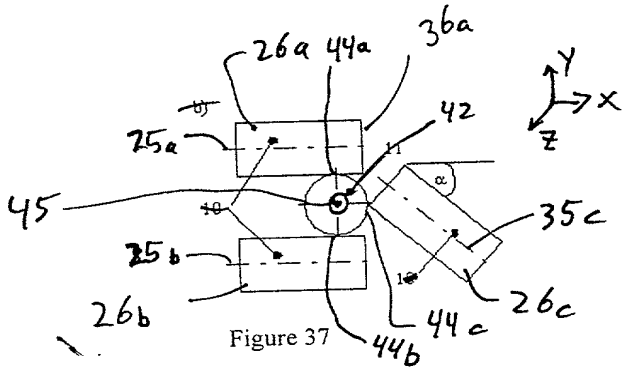

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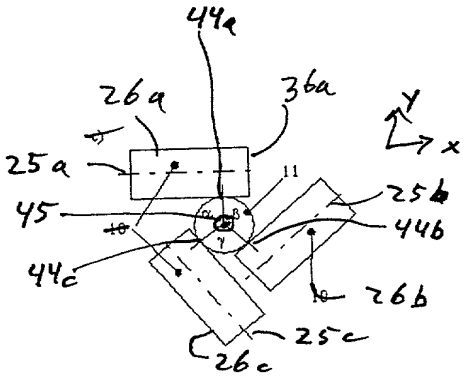

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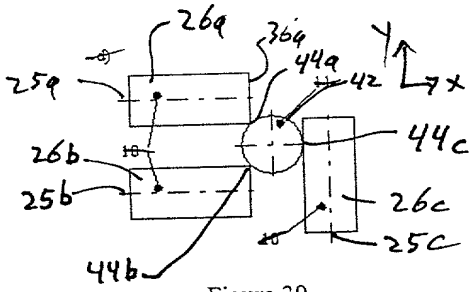

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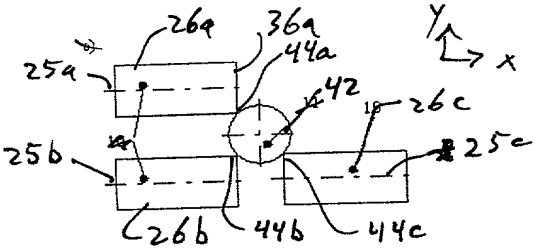

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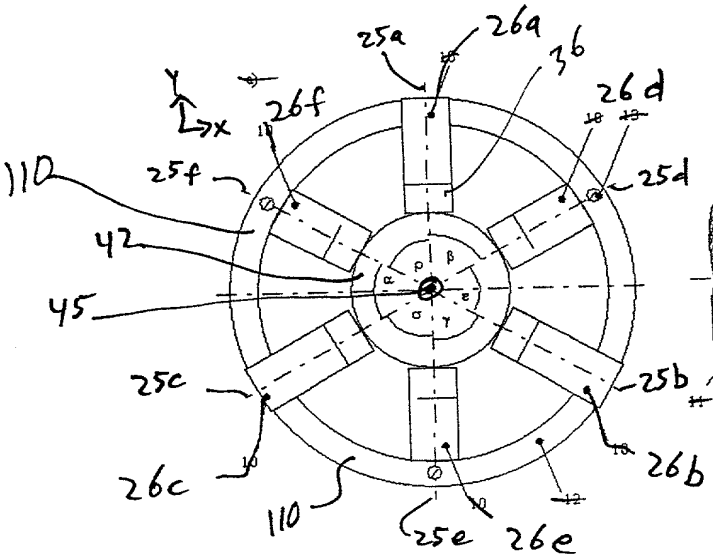

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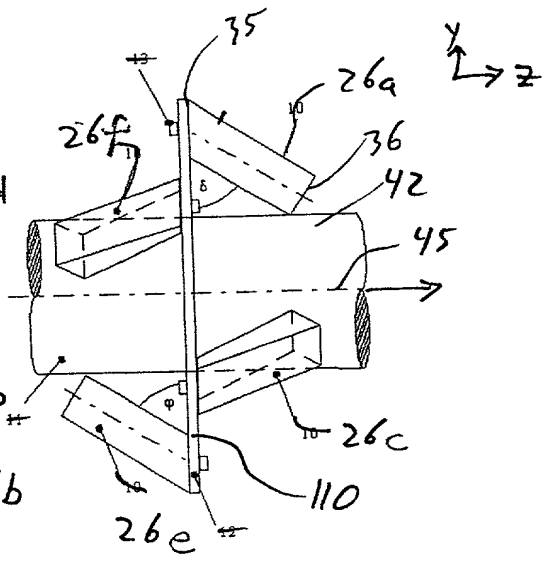

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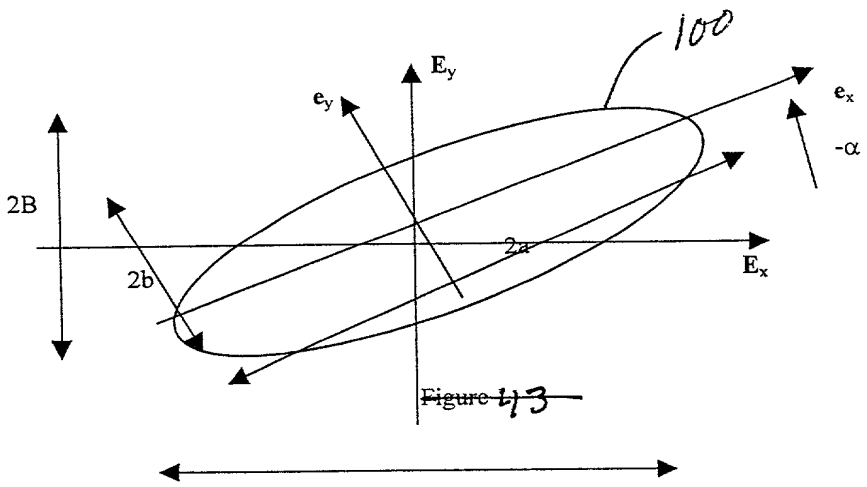


~~Figure 1~~ 3

2A

Figure 43

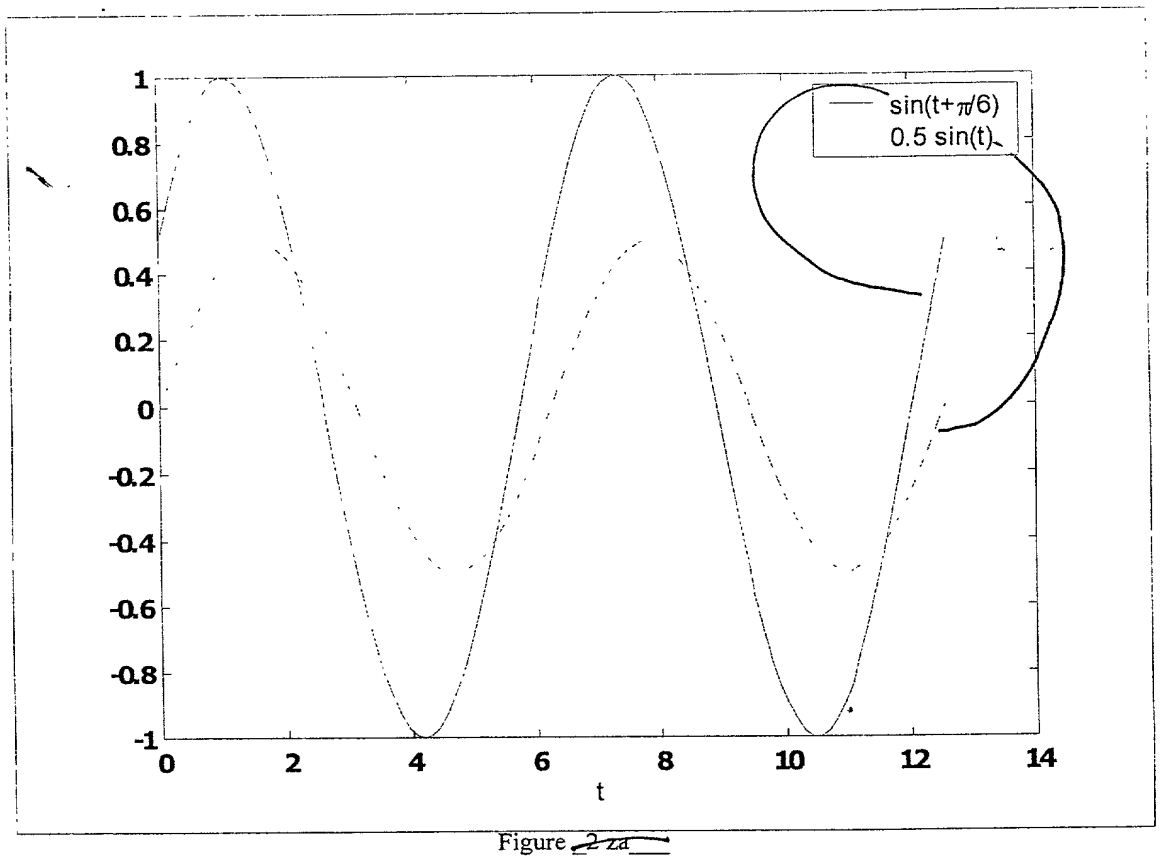


Figure ~~2 2a~~

44

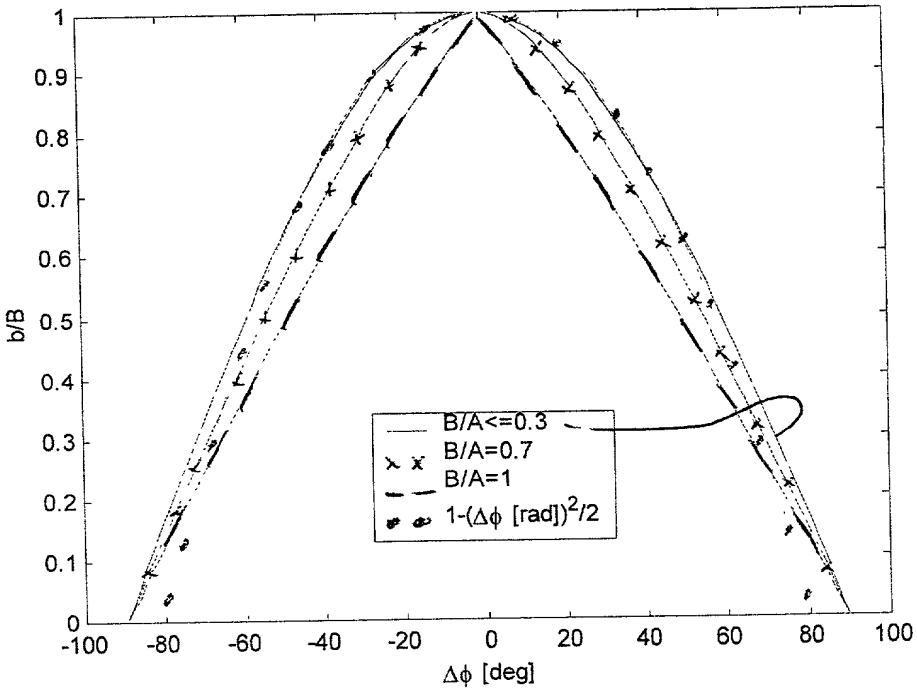


Figure ~~3a~~ 45

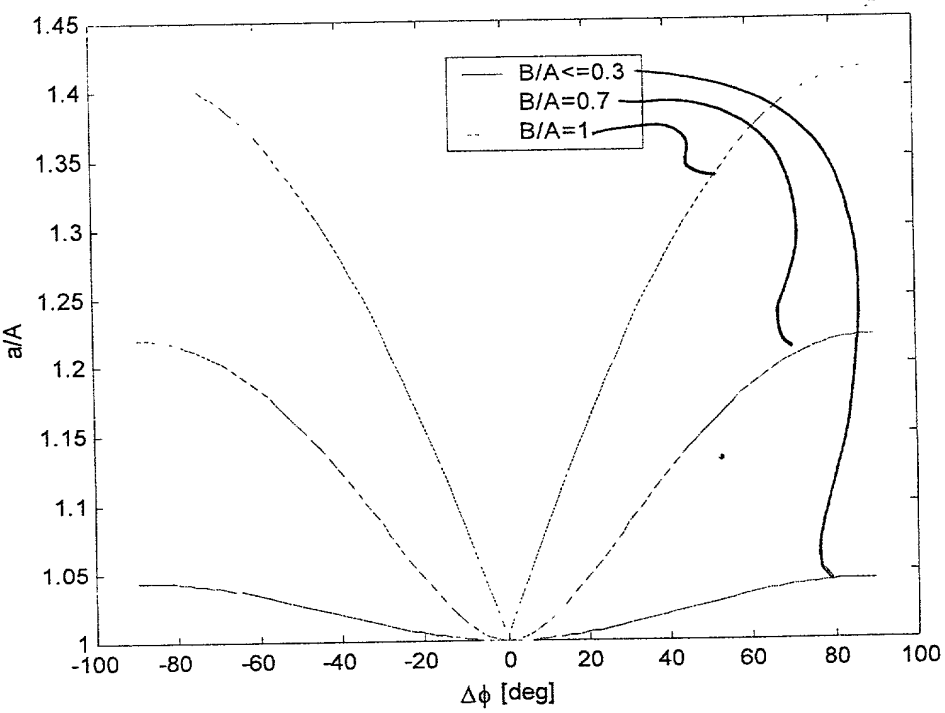
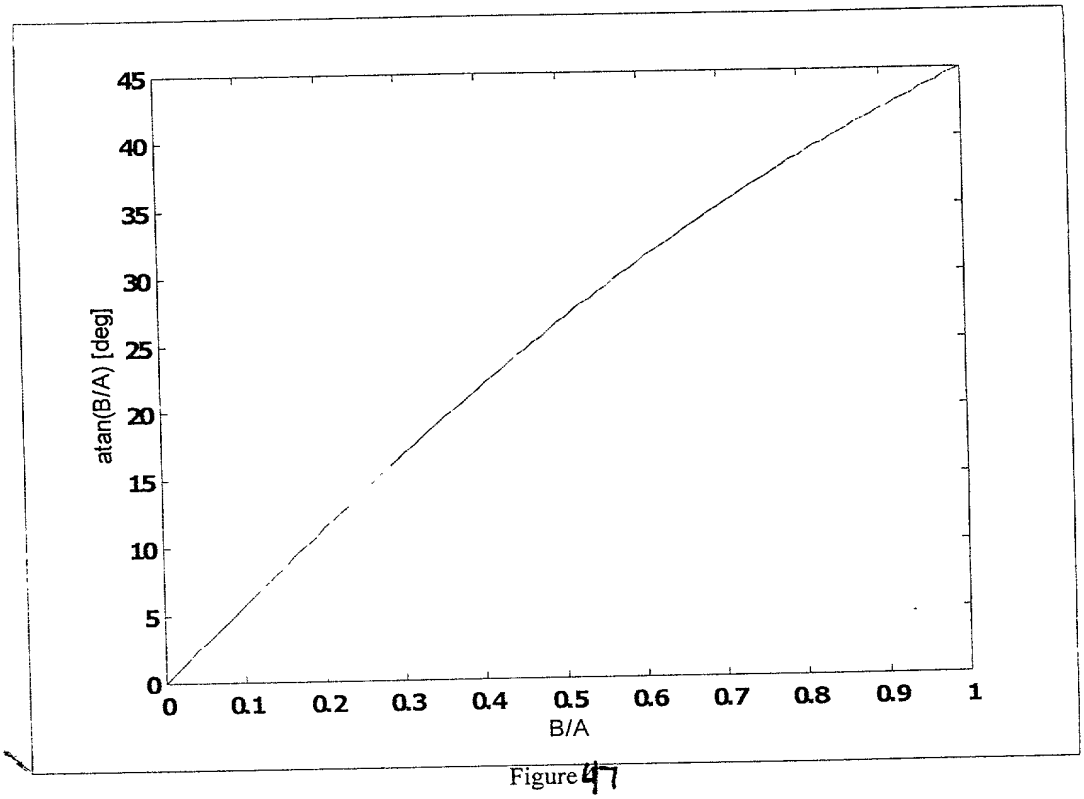


Figure ~~3 zb~~ 46



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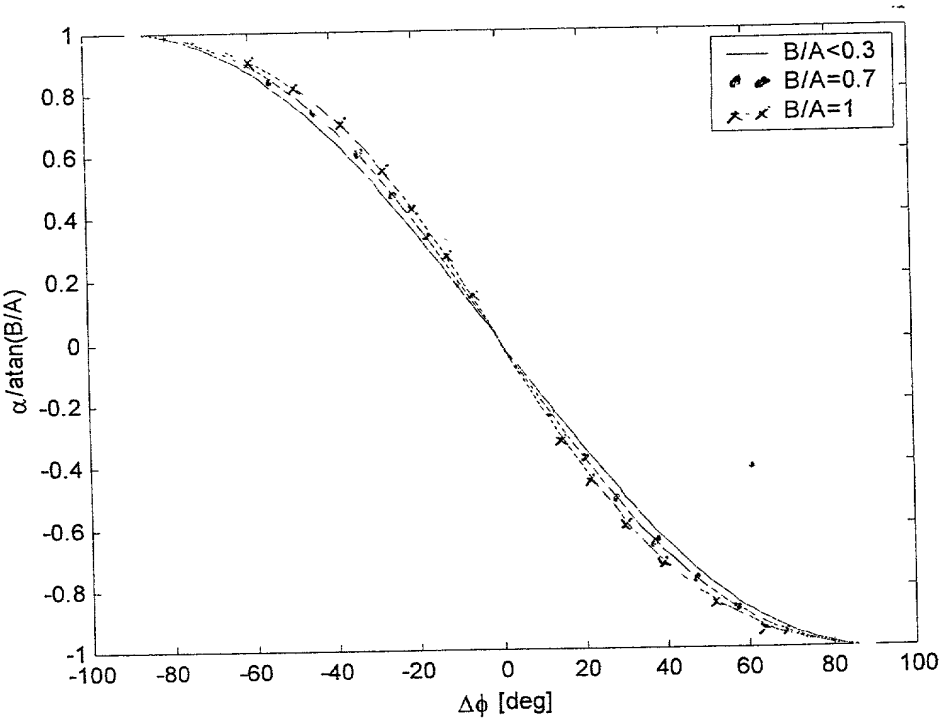

Figure 18

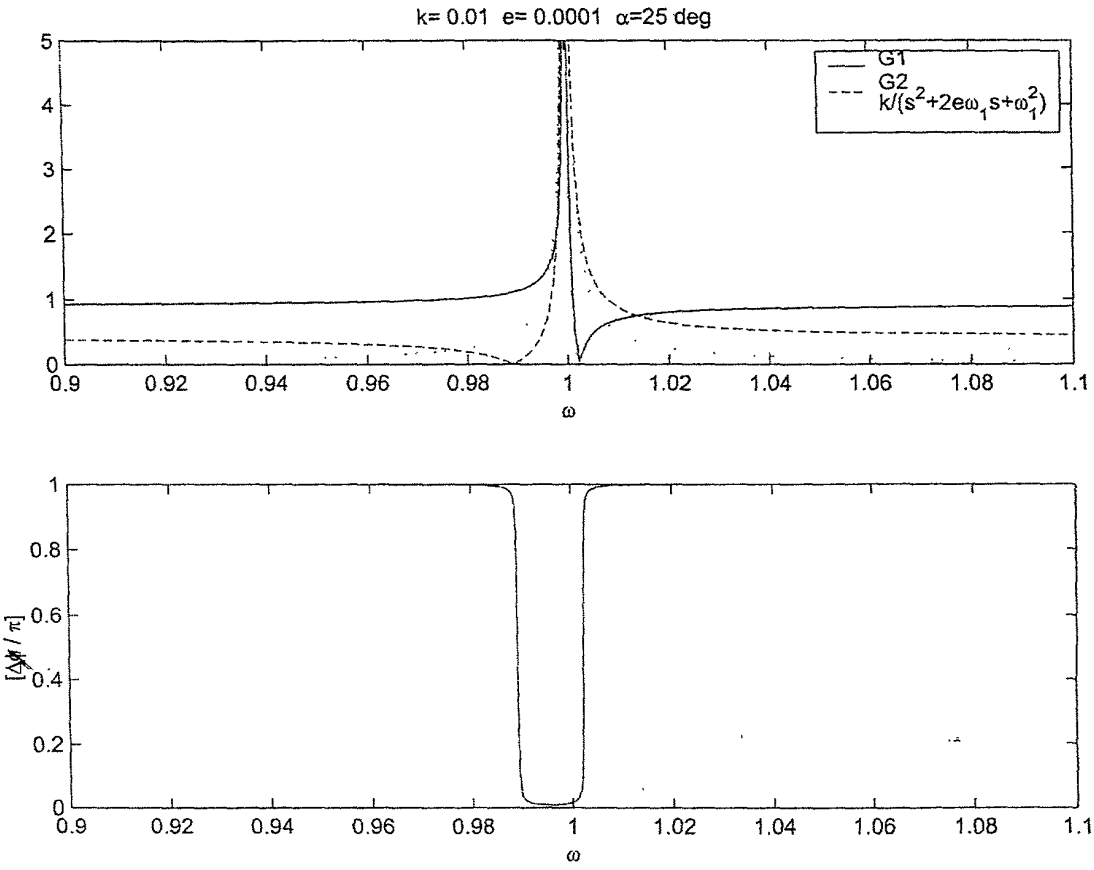

Figure 2a 49

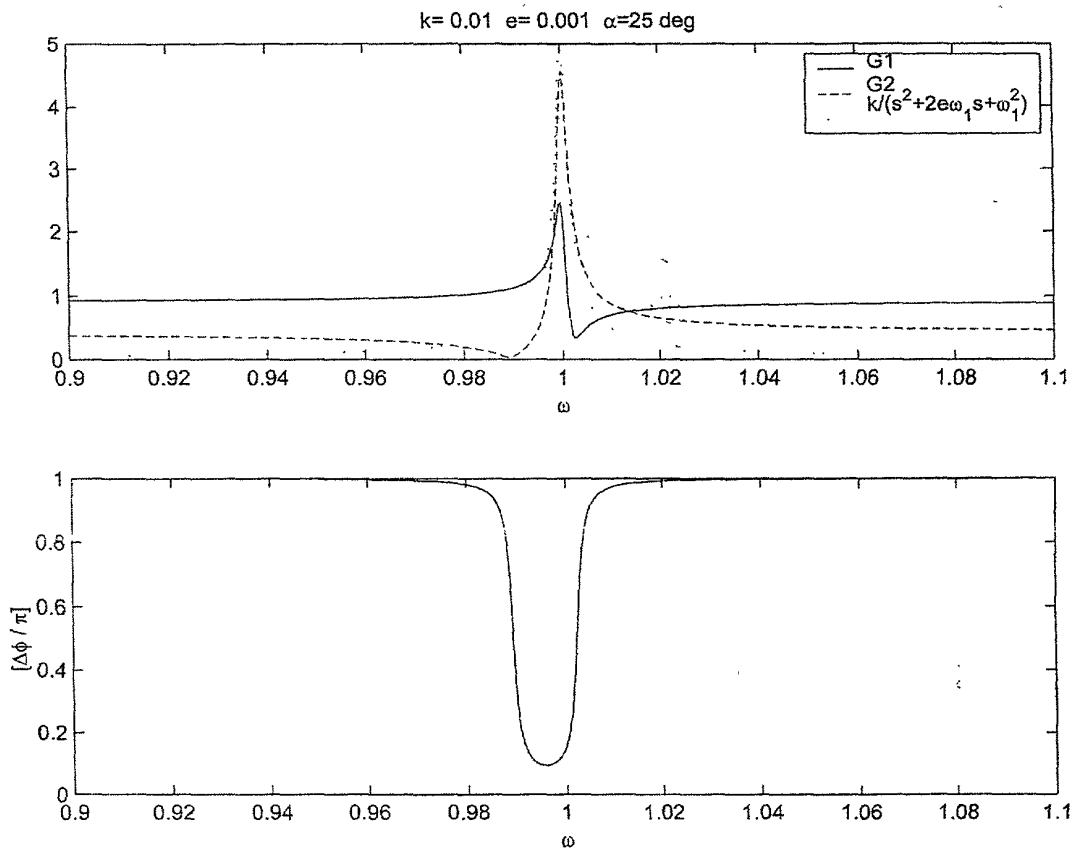

Figure ~~2b~~ 50

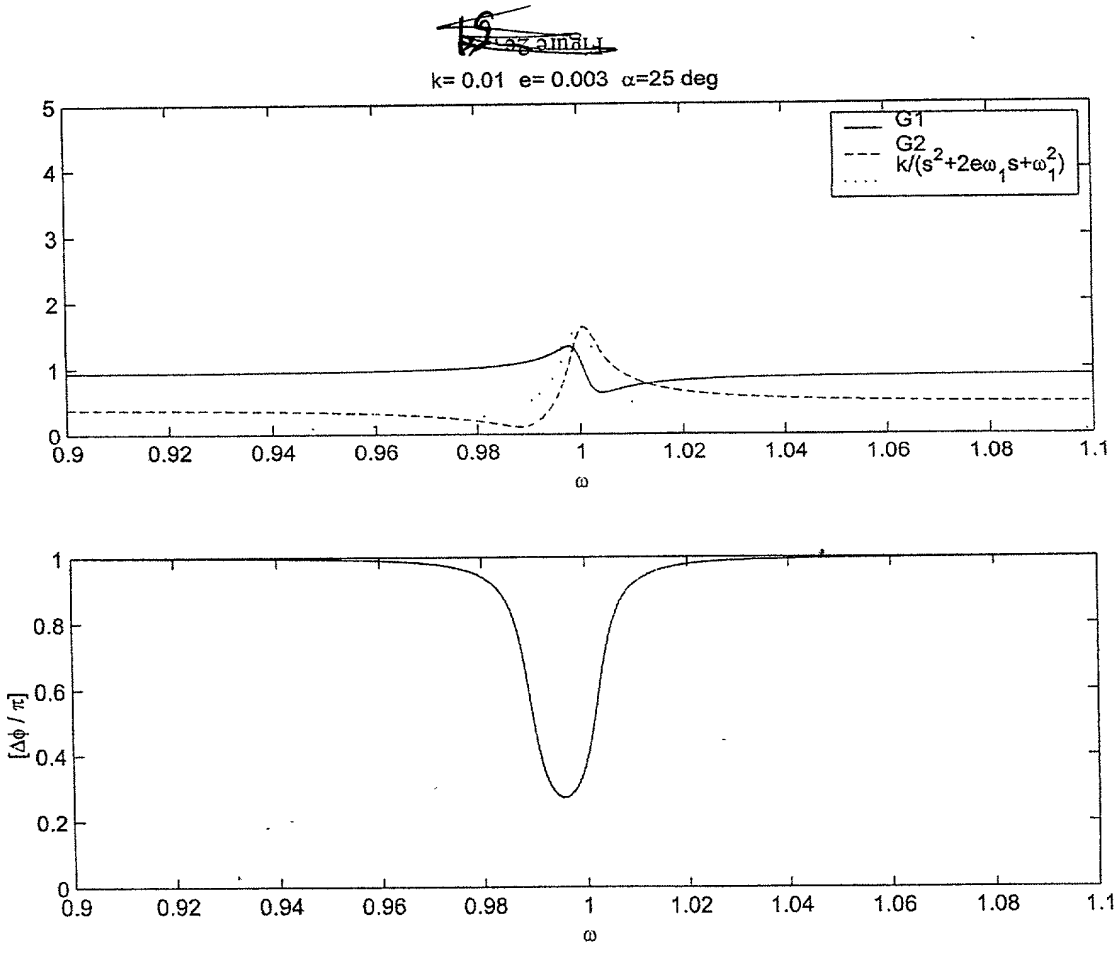
k= 0.01 e= 0.003 α=25 deg
G1
G2
k/(s²+2eω₁s+ω₁²)
5
4
3
2
1
0
0.9
0.92
0.94
0.96
0.98
1
1.02
1.04
1.06
1.08
1.1
ω
[Δφ / π]
1
0.8
0.6
0.4
0.2
0
0.9
0.92
0.94
0.96
0.98
1
1.02
1.04
1.06
1.08
1.1
ω

Figure 51

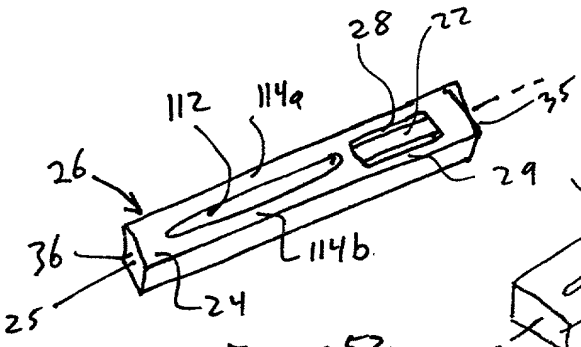

Figure 52

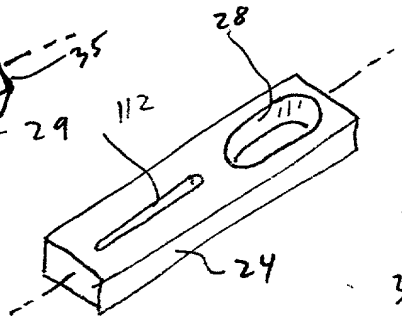

Figure 53

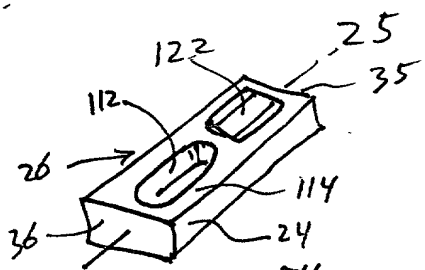

Figure 54

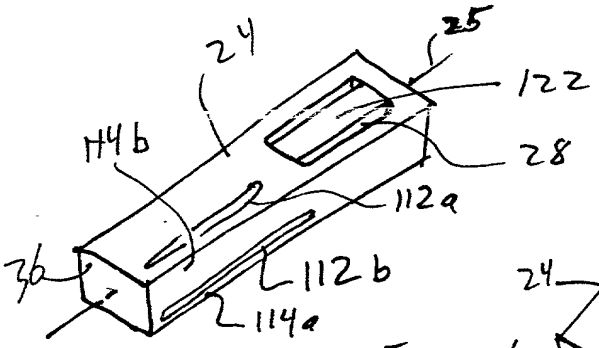

Figure 55

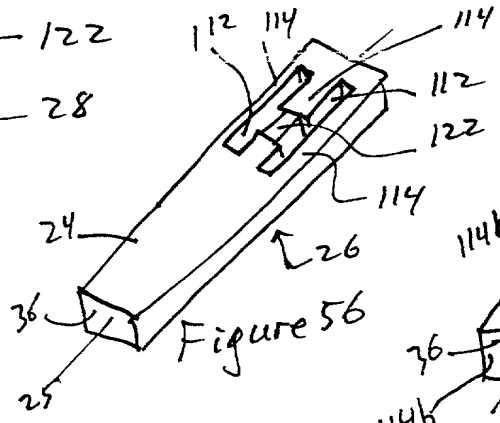

Figure 56

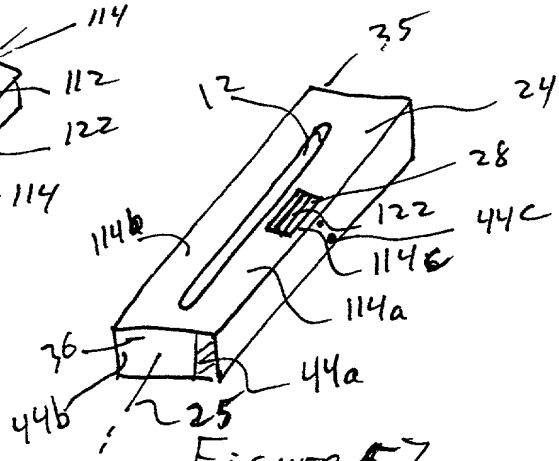

Figure 57

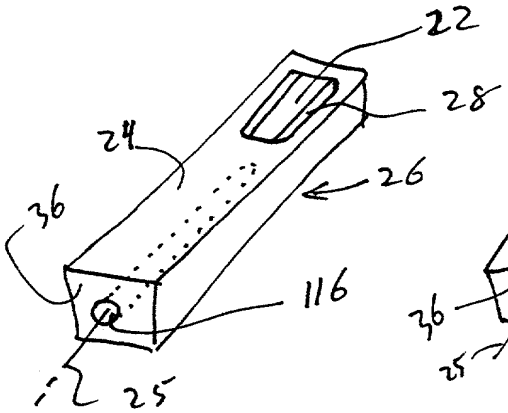

Figure 58

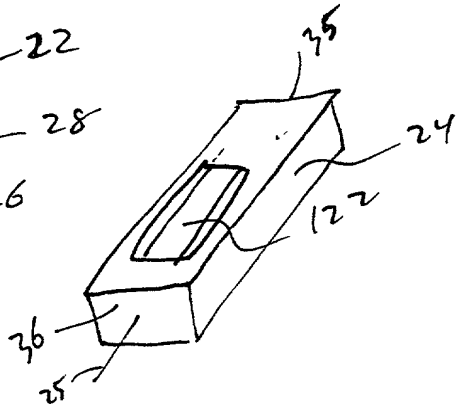

Figure 59

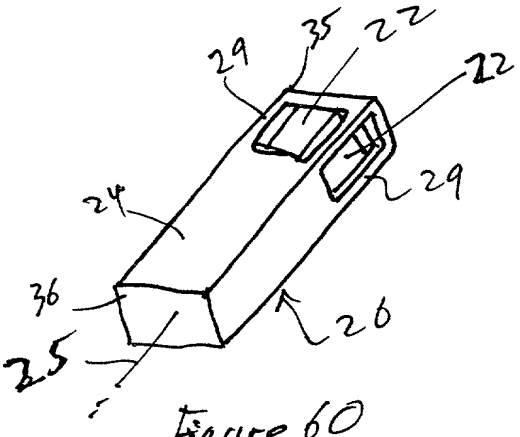

Figure 60

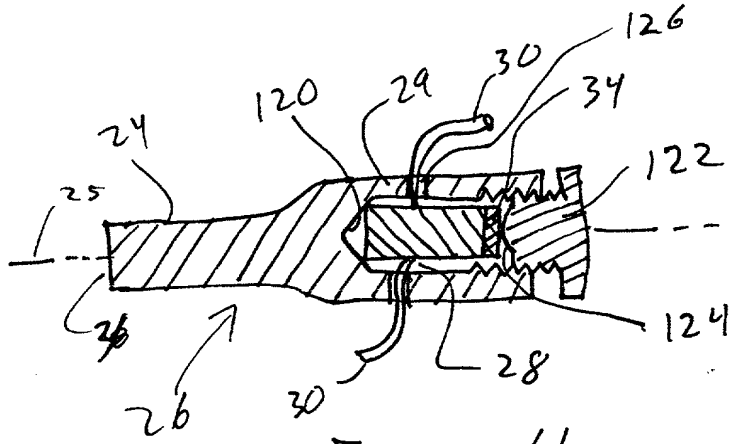

Figure 61

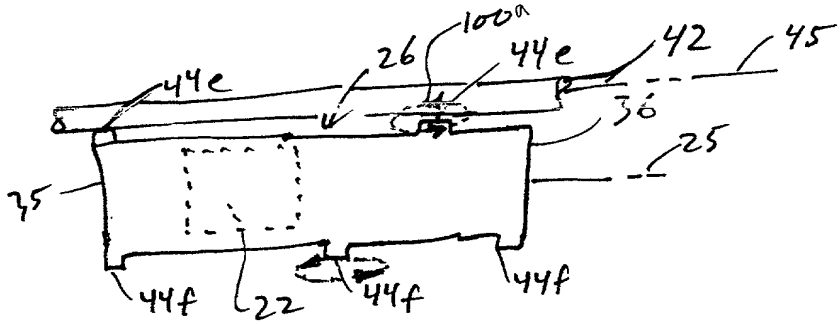

Figure 62

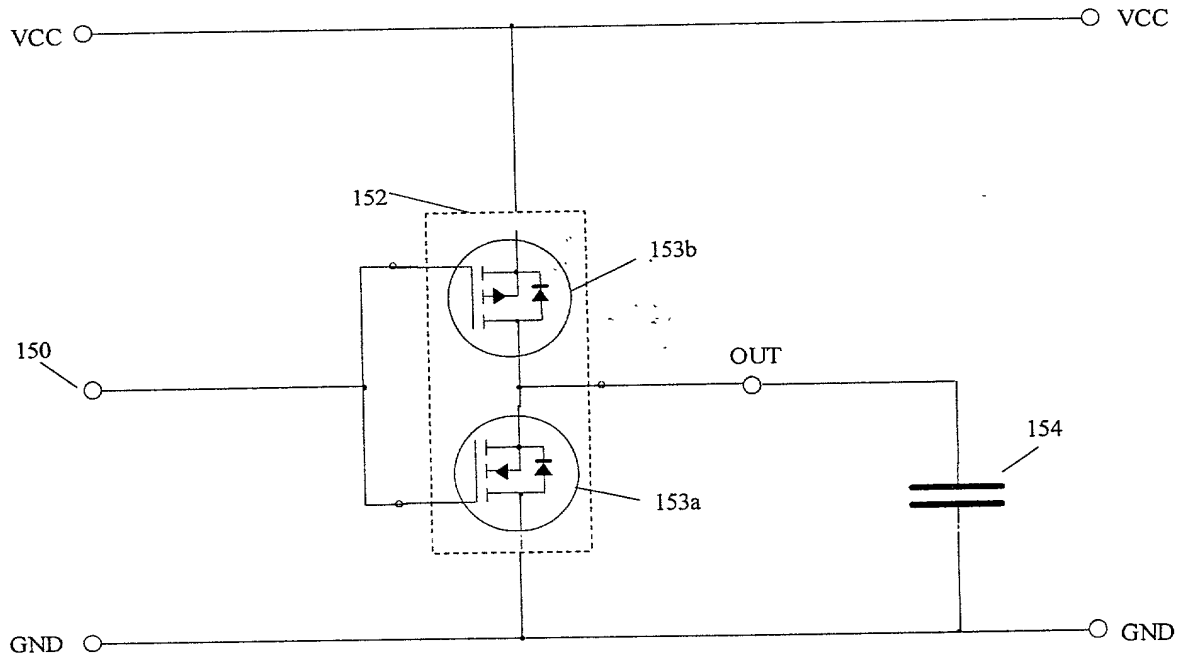

Figure 63

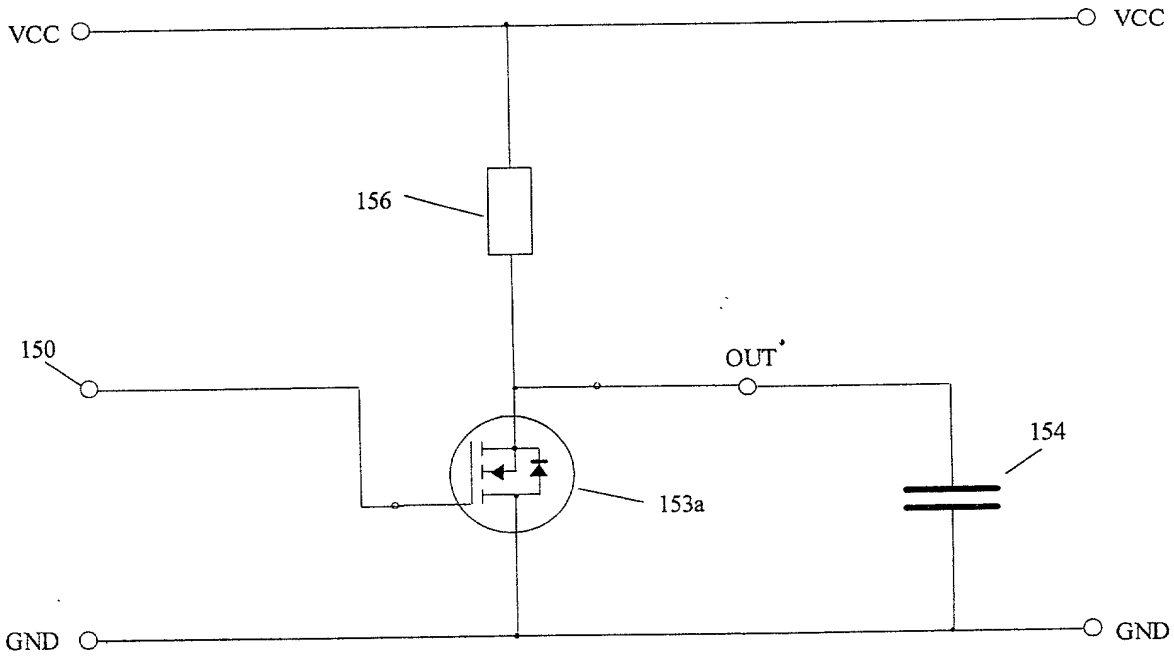

Figure 64

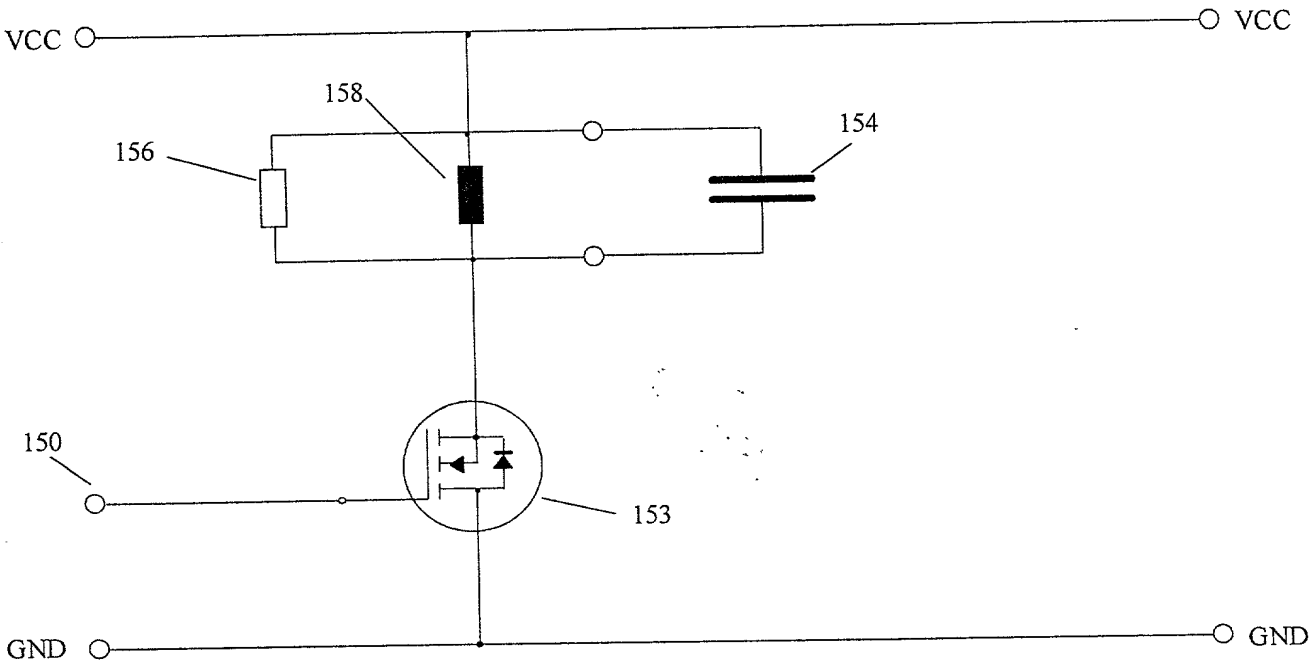

Figure 65

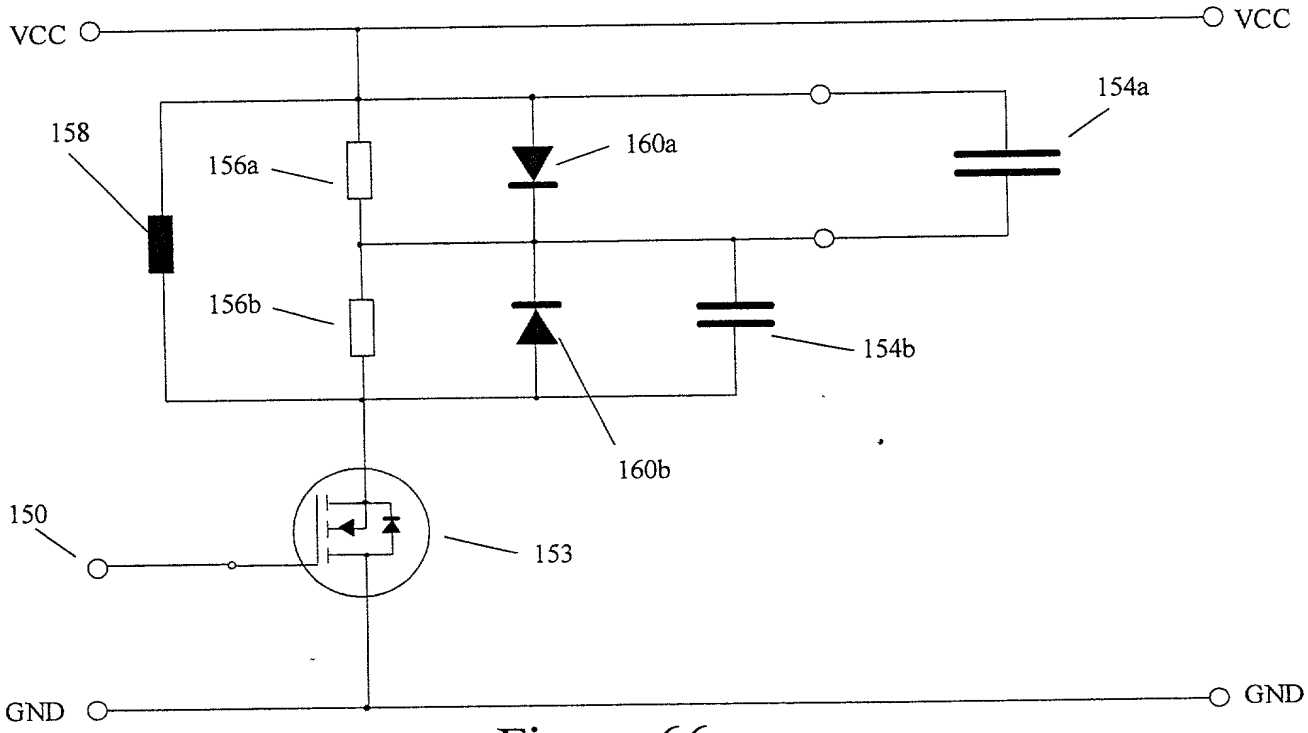

Figure 66

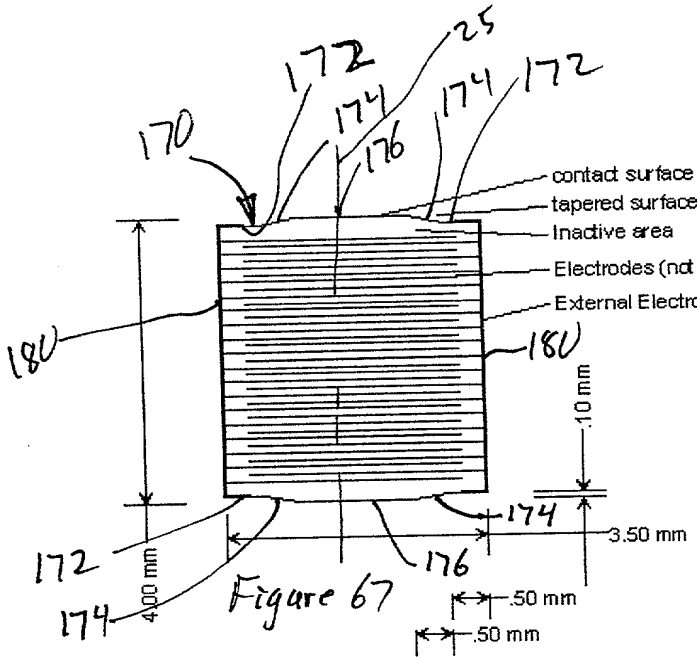

Figure 67

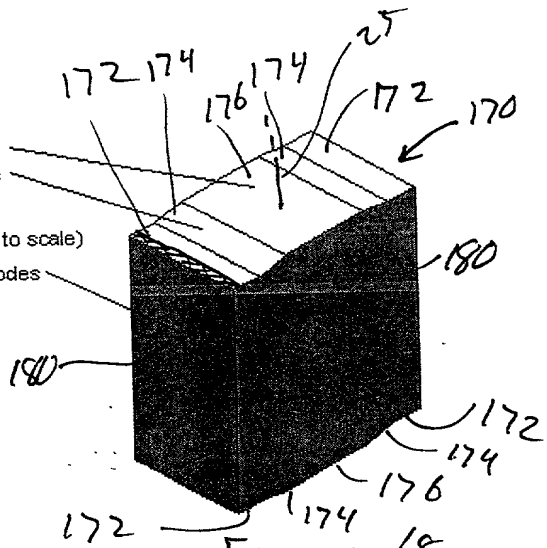

Figure 68

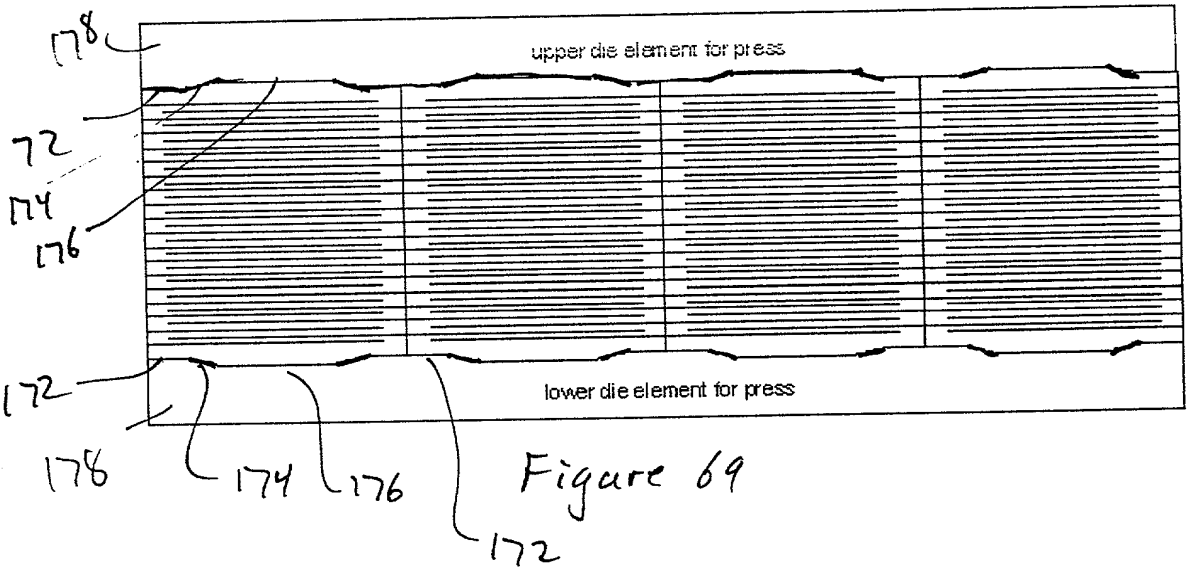

Figure 69

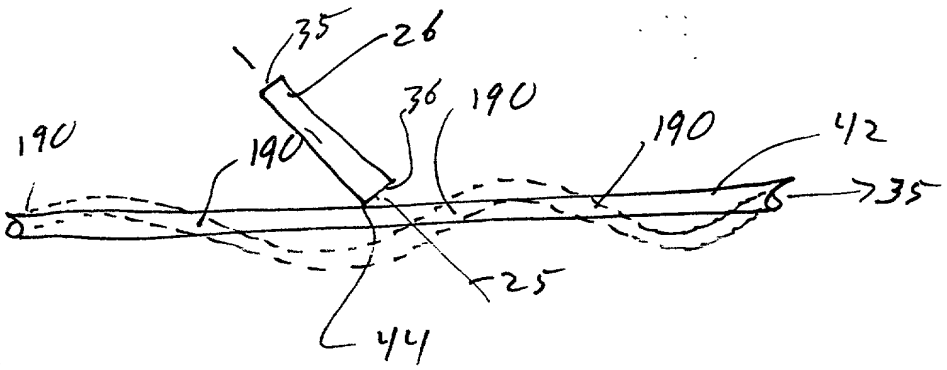

Figure 70

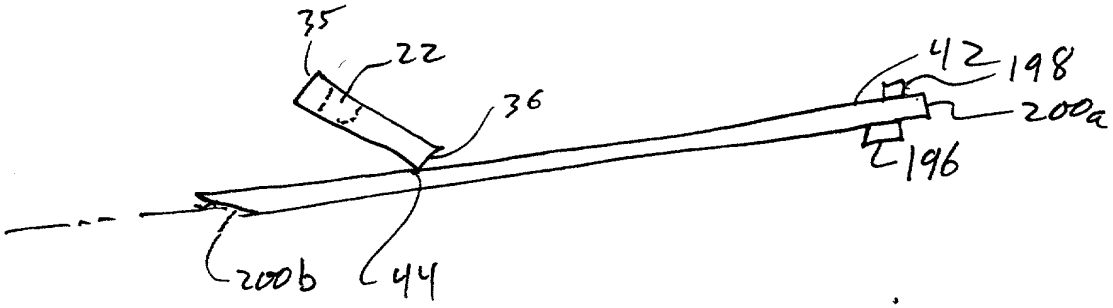

Figure 71

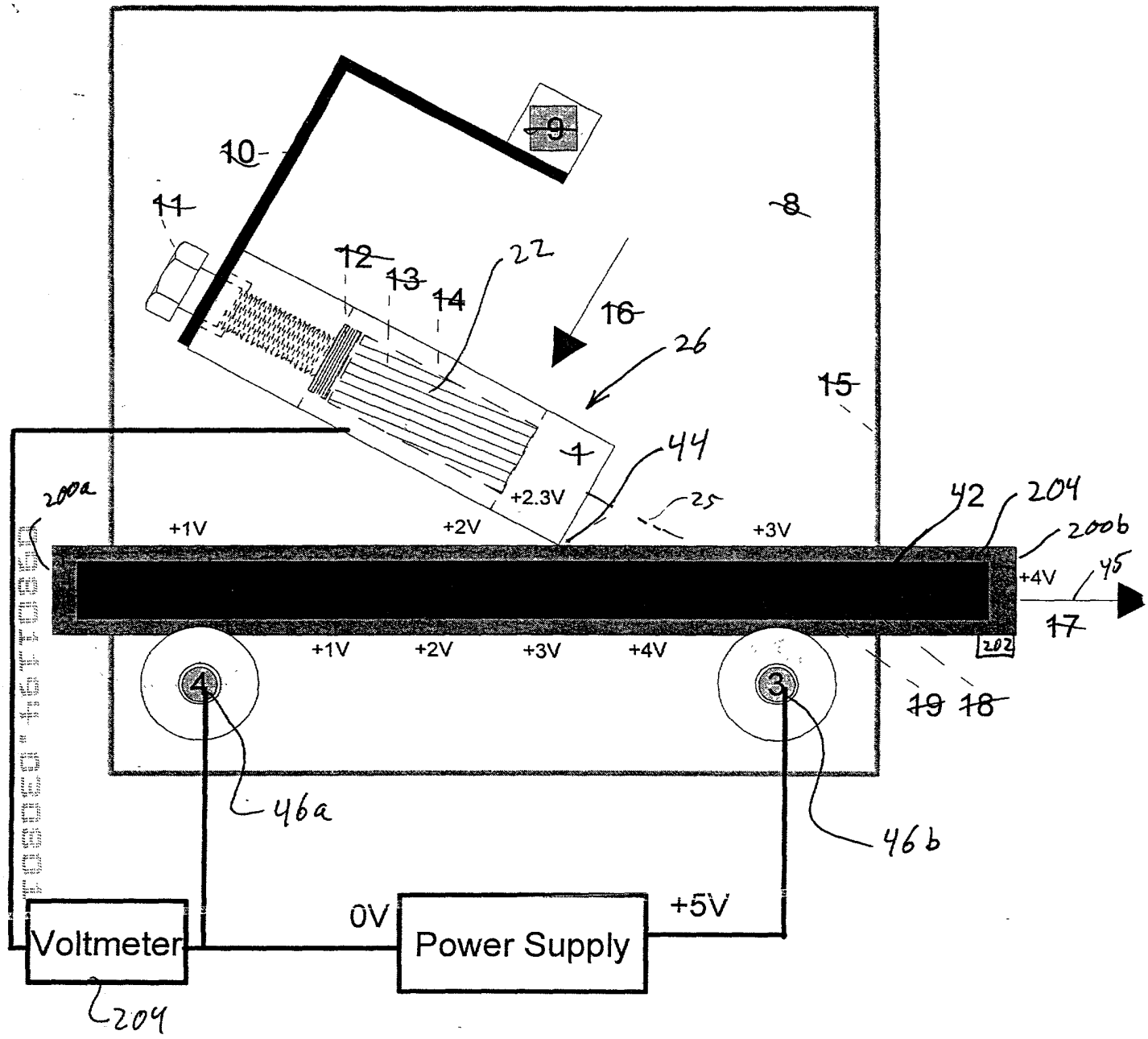
9
10
11
8
12
13
14
22
16
26
15
1
44
+2.3V
25
200a
+1V
+2V
+3V
42
204
200b
+4V
45
17
+1V
+2V
+3V
+4V
202
4
3
19
18
46a
46b
0V
+5V
Voltmeter
Power Supply
204

Figure 72

5005435 - 5005435

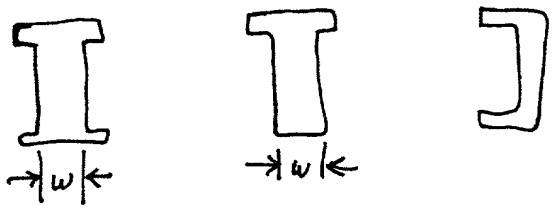

Figure 7B3

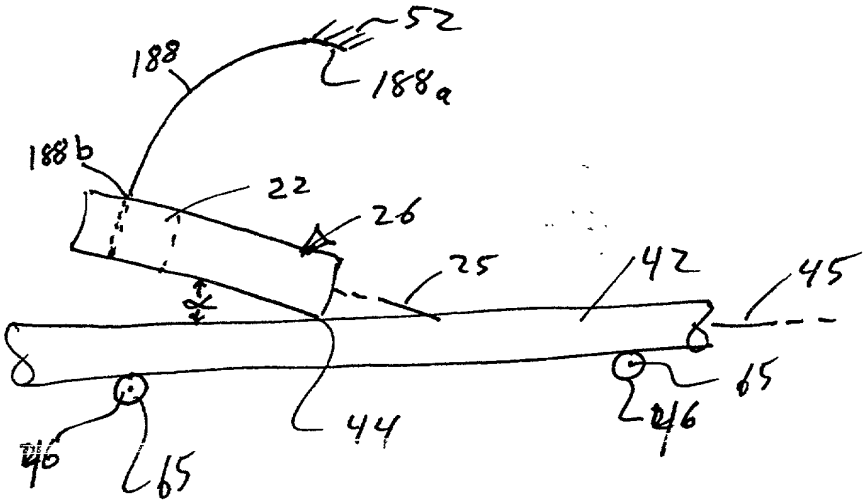

Figure 78 4

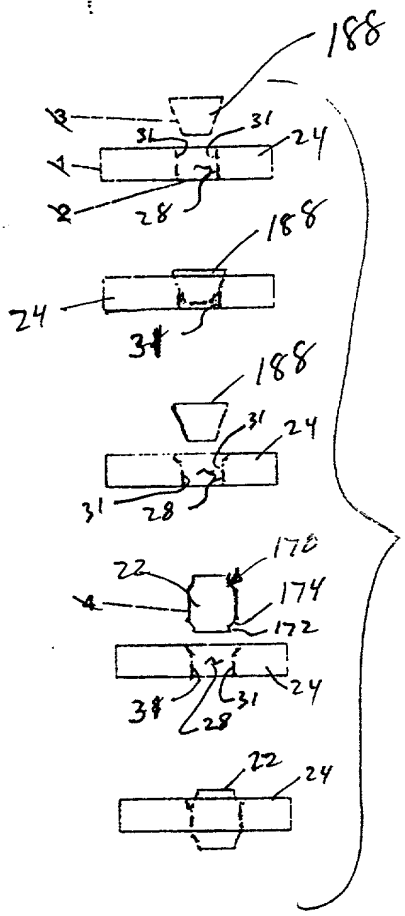

Figure 7B5

Fig

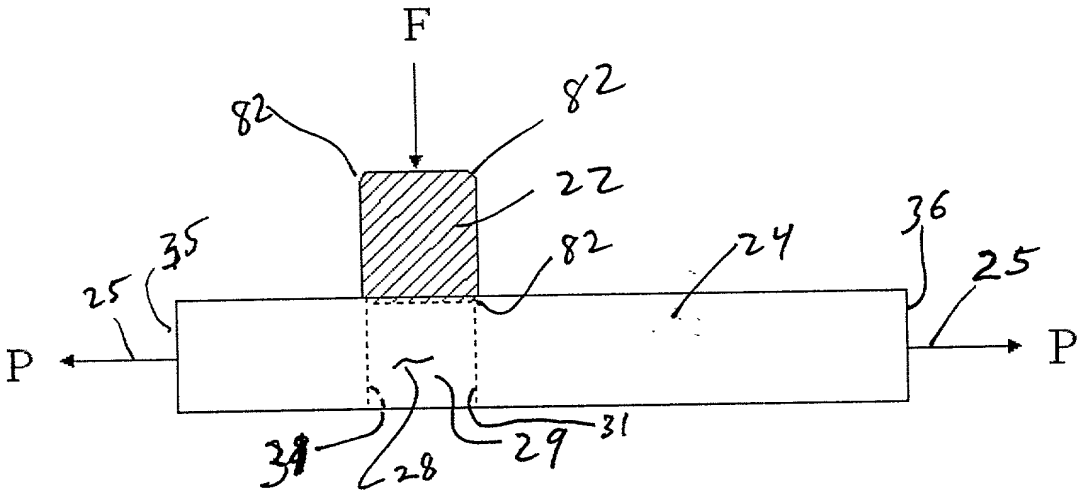

Figure 7 #1 b

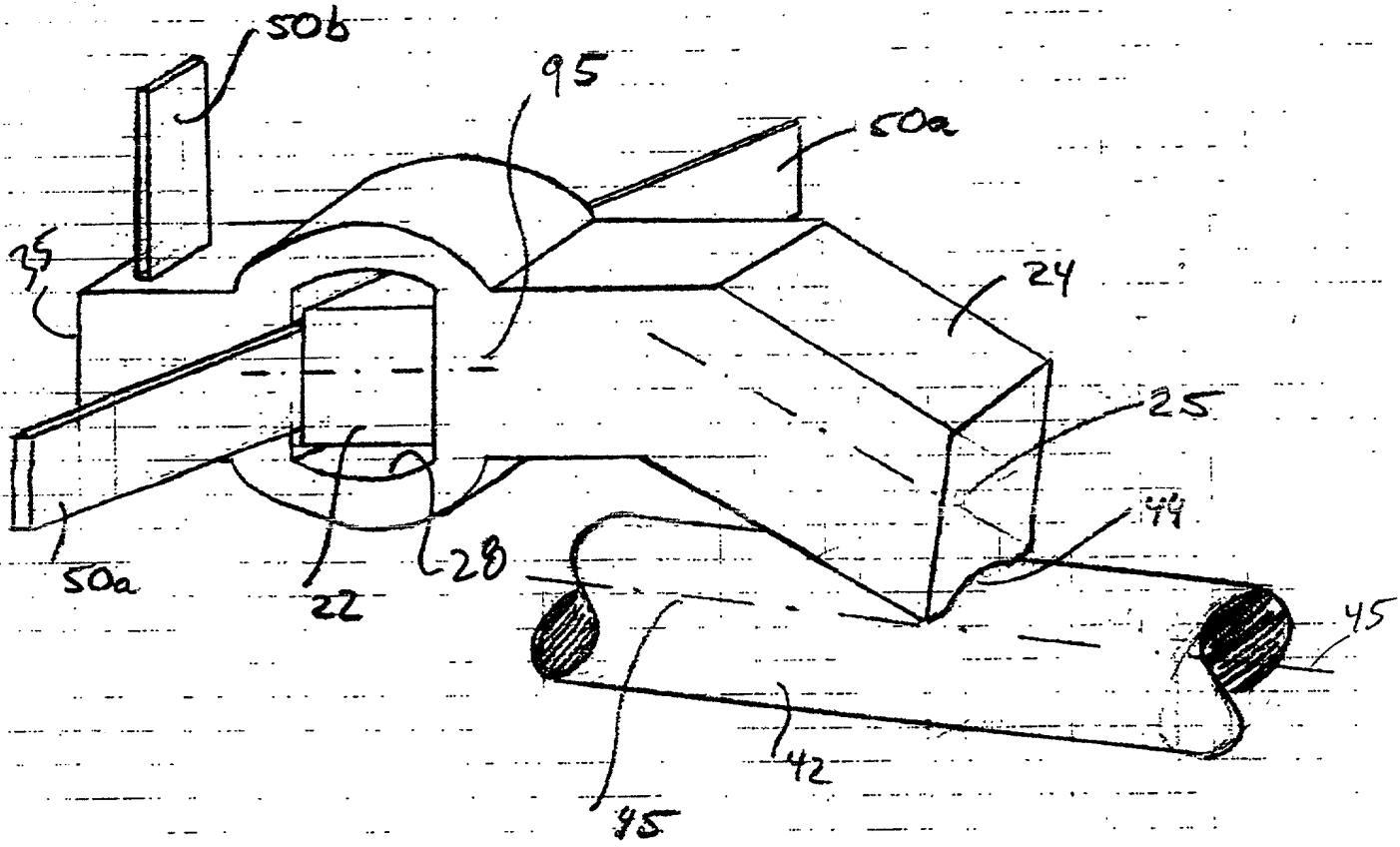

Figure 7B7

T0S3E0 HSTT0S60

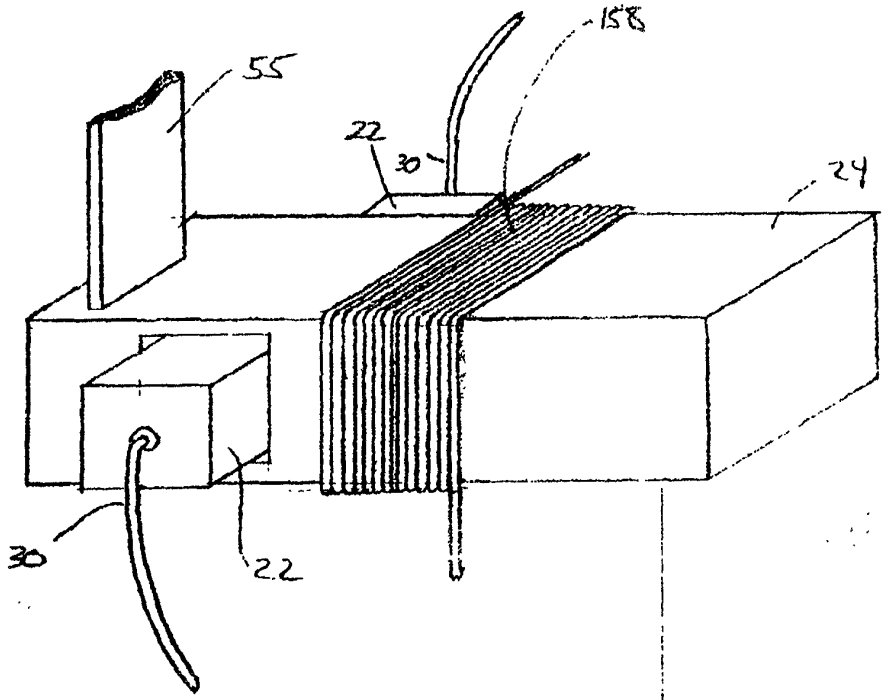

Figure 7B.

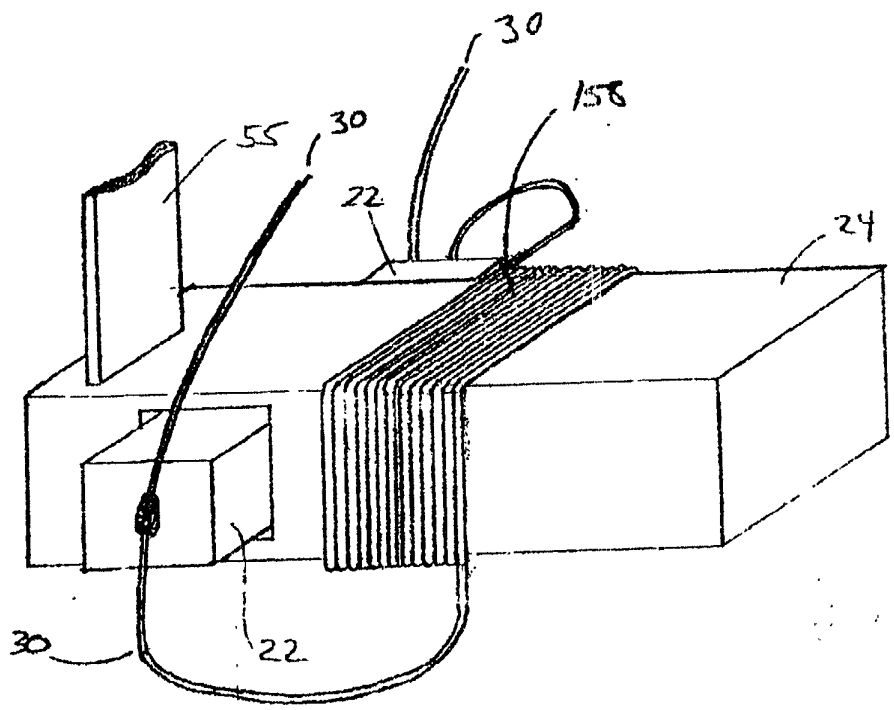

Figure ~~8~~ 79

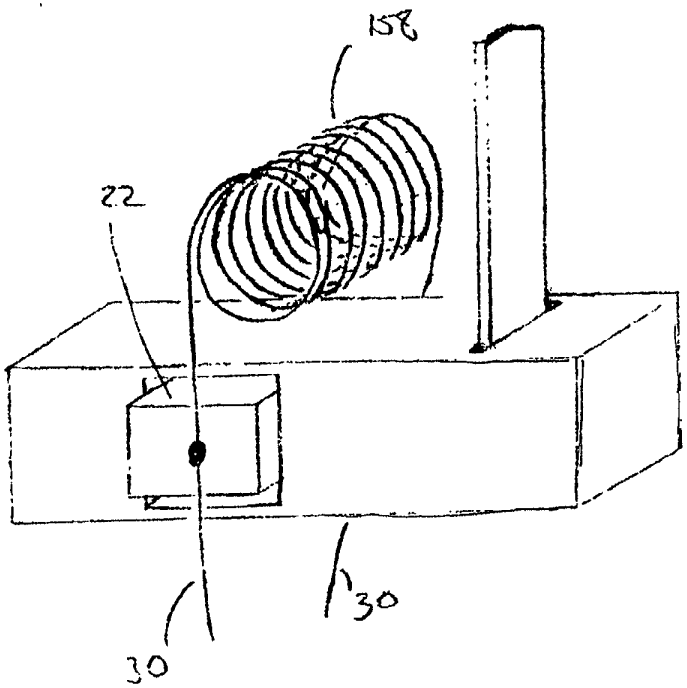

Figure 8O

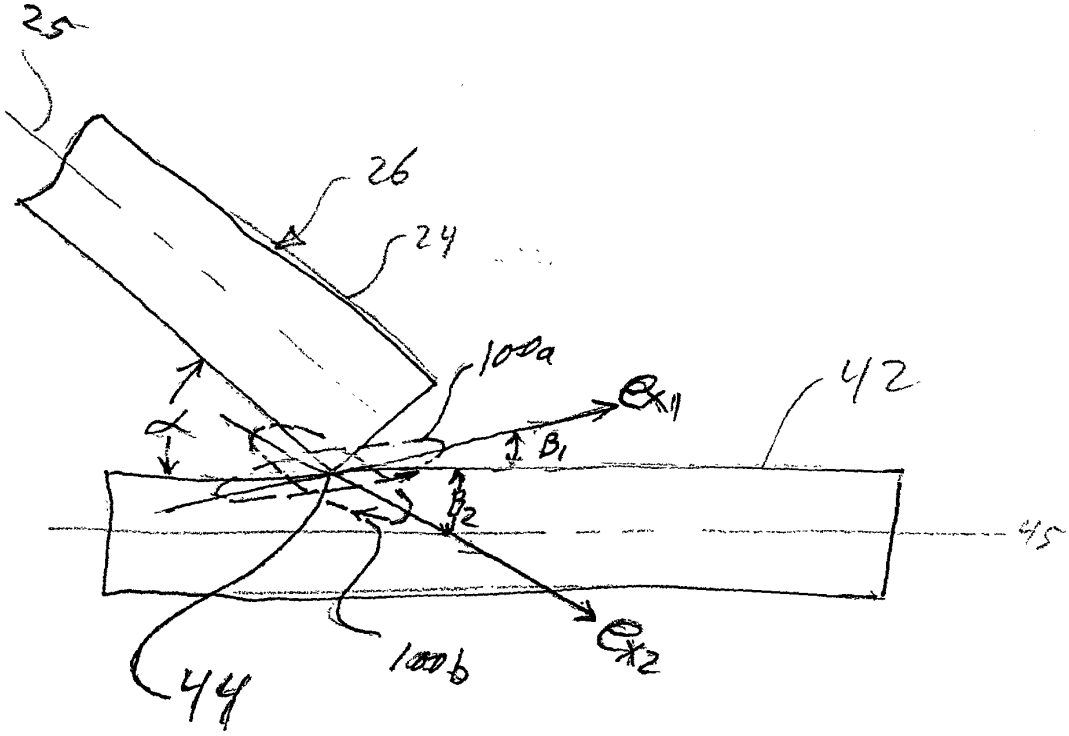

Figure 8

0508444 - 050804